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Mechanized Force Becomes Cavalry*

SINCE assuming the duties of Chief of Staff last November, General MacArthur has been reviewing the basic War Department policies with a view to the modernization of the Army. Among the subjects which he has had under consideration is that of the extension of Mechanization and Motorization throughout the Army. As a result of this study he has enunciated the following general principles which will govern the reorganization and development of the Army along this line in the future:

"The fundamental mission of an army to secure decisive victory and to secure it promptly, has not changed throughout the long period of recorded history.

"In undertaking such a problem, an army commander is confronted with preliminary tasks whose proper accomplishment is a prerequisite to final success. Other tasks must be accomplished when the bulk of the opposing forces are engaged, while still others must be performed when we pursue the beaten enemy or are forced ourselves to retire from the field. The character of the tasks to be performed fixes, in a general way, the characteristics of the troops assigned to them.

"The various tasks that the combat arms are expected respectively to perform become their general 'missions.' In organizing combat forces, the question then arises, 'How should these troops be equipped to enable them to carry out these missions?' Here is where we see the modern stamp on our forces, as they are equipped with new implements of war to assist them in solving missions centuries old.

"Too often in the past organization has been attempted from the standpoint of equipment, rather than from the standpoint of missions assigned.

"Few classes of equipment belong exclusively to any one arm. The rifle, although the basic arm of Infantry, is an important item of the equipment of other arms. When the tank had only the speed of the foot soldier, its use was confined generally to close support of the Infantry in attack. When it required strategic mobility, it had to be entrucked. Today, tanks possessing great strategic mobility are being developed, and it follows that certain types of these tanks may appear in organizations having missions far beyond the normal missions assigned to the Infantry.

"Cavalry acquired its name during a period when soldiers mounted on horses were able to move more rapidly upon an enemy than any other arm. At that

time, the horse also had value as a charging weapon. Thus, there has grown up in the public mind a very natural conception that Cavalry must include the horse. Modern firearms have eliminated the horse as a weapon, and as a means of transportation he has generally become, next to the dismounted man, the slowest means of transportation. In some special cases of difficult terrain, the horse, properly supplemented by motor transportation, may still furnish the best mobility, and this situation is properly borne in mind in all our plans.

"The missions of the Cavalry arm now, as in the past, include the following:

Long distance strategic reconnaissance.

Fighting for the control of the theater of reconnaissance.

Seizing points of strategic and tactical importance.

Tactical reconnaissance.

Pursuit of the enemy, or delay of his advance.

As an exploitation force to take advantage of any break or weakened point in a hostile battle line. In this type of operation, the cavalry may act alone or in conjunction with other arms.

As part of a reserve to be used tactically or strategically. It is not difficult to visualize a reserve of the future, moving out in column from head to rear—Cavalry (mechanized), units of the Tank Corps, Infantry temporarily embussed, all elements being able to move at a uniform speed without noise. Field Artillery must be prepared to support such a force with units especially organized and equipped to accompany it.

"An equally important function of the arm is to preserve the cavalry spirit, an asset which, while intangible, is none the less a vital factor in combat.

"To enable the Cavalry to develop its organization and equipment so as to maintain its ability under modern conditions to perform the missions enumerated, the following program is announced:

The Mechanized Force will be reorganized as a reinforced cavalry regiment, in which appropriate equipment of the present Mechanized Force will be absorbed. To provide for future development of the proper supporting arms for use with mechanized cavalry units perhaps larger than a regiment, the artillery and maintenance units will remain attached for the present.

As far as necessary, officers and enlisted men of any arm or corps may be attached to the regiment in order that the best thought upon this subject may be brought

*War Department Release, May 18, 1931.

to the Cavalry. Changes in enlisted personnel will be made gradually so as to accomplish both the retention of the experience gained in the Mechanized Force and the reconstitution of detached units in their parent organizations.

The Cavalry will undergo such general reorganization and re-equipment as will enable it best to perform the missions enumerated above. This may require at least two types of cavalry regiments. One (horsed) in which the horse and mule may remain only where they cannot be replaced by the motor for the performance of difficult tactical missions, or for operations in difficult terrain where the horse and mule still give us the best mobility. A second type of Cavalry (mechanized) in which the horse and mule shall have disappeared entirely.

"The infantry mission is to close with the enemy, and its ability and power to accomplish this makes Infantry the decisive arm. Its success is a prerequisite to army success; consequently, its efforts must not be dispersed in the performance of auxiliary and supporting missions that can be carried out by other arms. In time of peace the Infantry will be trained in close proximity with other arms, in order to develop the team work and mutual understanding so necessary to insure the accomplishment of the infantry mission.

"As one of the principal duties of the tank will be to support Infantry, it should be trained with it to develop the most efficient type of machines and most applicable methods of tank support for infantry units. But the tank itself may never become a piece of equipment assigned to an infantry regiment. In war, tank organizations may be assigned to corps and army troops to be employed where opportunity offers, including opportunities of terrain.

"In the development of tanks, and tank organizations, it must be remembered that certain important considerations apply to the employment of tank units in war. Among these are:

Tanks will be difficult to procure in large numbers, particularly in the early stages of any war.

Opportunities for their best employment on the battle front must be carefully selected, both as to time and as to place. They are assault weapons only, to be used for relatively short periods of time, under favorable opportunities.

Maintenance will offer many difficulties, particularly in the areas of front line divisions.

"All these considerations indicate the desirability for visualizing tank units in war as Corps, Army, and G.I.I.Q. troops. In the development of the tank, due regard must be paid to the necessity for strategic mobility, even though its fundamental qualification must be tactical mobility.

"The 'tank' is properly the term that will be used when this vehicle is employed with infantry. When it is employed as a part of the equipment of cavalry, it may be developed to possess characteristics particularly requisite for such service, and it might then be given the name 'combat car.' "

The above directive in no way intends rendering inactive as mounted troops any number of cavalry regiments. It means that one mounted regiment will be rendered inactive as a mounted regiment and reconstituted as a cavalry regiment (mechanized). Which regiment this will be has not yet been determined, nor have the details of the change been worked out. When the selection of the regiment has been made the enlisted personnel and horses of this regiment undoubtedly will be absorbed gradually by other mounted regiments and the enlisted personnel of the present Mechanized Force will gradually be transferred to the mechanized cavalry regiment.

Further mechanization of horse regiments will undoubtedly depend upon the results obtained with the one regiment which the War Department directive contemplates mechanizing.



The Mechanized Force

Its Organization and Present Equipment¹

Captain Arthur Wilson, Field Artillery

THE Mechanized Force, officered and manned by personnel from all arms of the service, assembled at Fort Eustis, Virginia, is in the midst of an intensive training program. At a time of the year when many organizations are not taking part in extended maneuvers, this force is participating each week in tactical exercises that take it over most of the Virginia Peninsula. A single problem extends as far as 75 miles for the entire force, with the reconnaissance vehicles covering well over 200 miles a day. Night marches and maneuvers, with all vehicles moving without lights, have also been part of the schedule.

The concentration of the force was completed in November, 1930, with the exception of the signal platoon which arrived the first week in March and the quartermaster repair unit which arrives in June. While the Mechanized Force is a new unit, it is by no means composed of new organizations. It has, therefore, been possible to launch immediately into a training program which not only carries on individual and company training, but also includes the work of coordination between units and the development of the tactical missions of the force as a whole.

Before we go into the internal organization and equipment of the Force let us define the word "mechanization." In order to avoid confusion of thought the War Department has seen fit to define and to differentiate between mechanization and motorization.

Mechanization is "the application of mechanics directly to the combat soldier on the battlefield."

Motorization is "the substitution of the motor-propelled vehicle for animal-drawn in the supply echelons of all branches of the Army, and in providing increased strategical mobility for units of all types through the carrying of men, animals and equipment in motor vehicles over roads."

To reflect in the organization of the Army the mechanical age in which we live, to take advantage of the outstanding leadership of this country among the nations of the world in the automotive industry, and to exploit to the fullest extent possible the mechanical and scientific field of the nation in the interests of national defense, the Mechanized Force was constituted. It is not only a self-sustaining unit designed to fulfill a particular and necessary role in the organization of the Army, but is a field laboratory to develop tactics for such a force and to test mechanical vehicles and weapons suitable to its use. The War Department has

determined that the United States, the leader in motor vehicle manufacture, will not continue to be the last in the application of this great asset to the national defense.

"A new element foreseen as a development in the armies of the future is the mechanized force," wrote General Summerall in his final report to the Secretary of War; and as one of his last official acts as Chief of Staff he ordered the organization of such a force.

To carry out its mission and its tactical rôle the force is organized with means for administration and command, for ground reconnaissance, and for defense against air attack; and is provided with an attack unit, a holding unit, and supporting units. It consists of a force headquarters and staff, and ten organizations, which are a headquarters company, an armored car troop, an antiaircraft detachment, a tank company, a machine gun company, a chemical detachment, a field artillery battery, an engineer company, an ordnance company, and a quartermaster motor repair section.

Force Headquarters. It is at once apparent that there must be developed for the force a technique of command and communications different from anything that has heretofore been accomplished. There must be evolved the internal tactics of the force itself, as well as the tactics of the force acting as a unit and in co-operation with other organizations. There are also many questions of equipment, supply, and maintenance that must be worked out in this experimental field laboratory for mechanization.

The headquarters consists of the commanding officer and a staff of an executive, an adjutant, an assistant adjutant (personnel), a plans and training officer, an assistant plans and training and liaison officer, a supply officer, an assistant supply officer, an intelligence officer, an ordnance officer, and a commanding officer of special troops. This last named officer is a major and has administrative command of the headquarters company, antiaircraft detachment, chemical detachment, ordnance company, and quartermaster repair section. He also commands the field trains. The commanding officers of the chemical and signal detachments also act as chemical and signal staff officers.

Headquarters Company. The headquarters company is organized into an administrative section, a supply platoon, and a communications platoon.

Armored Car Troop. The ground reconnaissance element is provided for in the armored car troop from the 2d Cavalry Division. With this unit ground reconnaissance can be pushed far beyond anything that has ever been accomplished on foot or on horse.

¹This article was written in March and revised in April. Consequently some minor changes might have occurred by the time it appears in the JOURNAL.

The cars are built for rapid movement; and because of the large number of automatic weapons and their armor, they have a high degree of fighting power. The troop is organized into a headquarters, consisting of an armored Franklin radio car, a five-passenger Ford touring car for cross-country, a solo motorecycle, and four platoons. The first platoon consists of two light cars, a Chevrolet and a Plymouth; the second has three light cars, all Whippets; the third, two medium LaSalle cars; and the fourth three medium, so-called, Franklin cars. All cars except the Franklins are built on commercial chassis and have the engine corresponding to their make.

The light cars are entirely protected with 1/16-inch armor, except the turret which is 1/4-inch armor. In each turret is mounted one caliber .30 Browning tank machine gun, air-cooled.

The medium cars all carry a crew of four men, and are completely armored with 1/4-inch armor. The La Salles each carry one caliber .30 Browning tank machine gun. The Franklins carry one caliber .50 machine gun which can fire at a rate of 400 rounds per minute, and two caliber .30 Browning machine guns, capable of firing from 500 to 600 rounds per minute. The light cars are capable of a speed of 50 and the medium cars of 70 miles per hour.

In addition to the machine guns each car carries a Thompson sub-machine gun, and all members of the troop are armed with the automatic pistol.

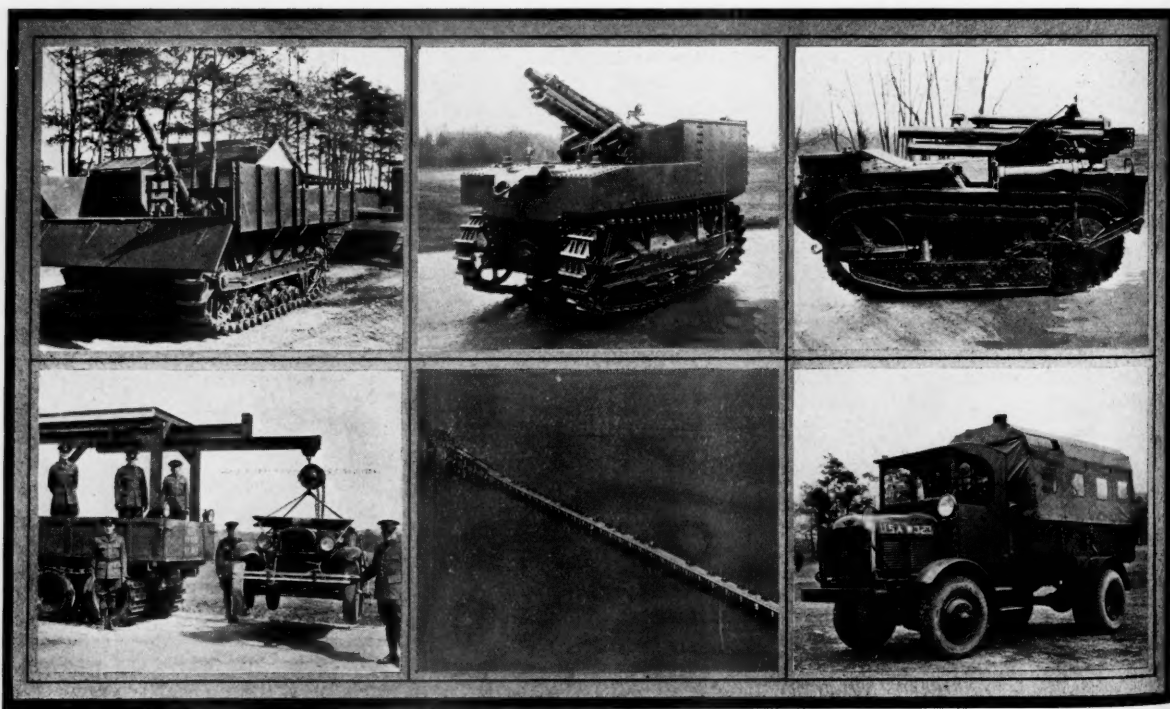
Antiaircraft Detachment. The force is a vulnerable target from the air when on the march, at a halt, or in

bivouac; to protect its fighting as well as its non-fighting vehicles for front line transportation, an antiaircraft detachment is provided. It is organized to give a close, powerful, emergency defense against aircraft. It is equipped with two single-gun antiaircraft mounts with caliber .30 Browning water-cooled machine guns, carried in two-ton F. W. D. trucks, and with one multiple machine gun mount (carrying two caliber .50 Browning machine guns) on a commercial White chassis. The mount has all-around traverse and can be elevated to 87 degrees. It is equipped with a stereoscopic sight. Though the guns can fire 7500 yards, the effective tracer range is considered as 1200 yards.

The crew consists of a driver, an assistant driver, a gunner, two assistant gunners, and two observers. The gunner elevates and traverses with his hands, and fires the guns with his feet. One assistant gunner on either side watches a gun, sees that it works correctly, and attends to the ammunition supply. The two observers are used to watch for targets. When on the march the two assistant gunners are also used as observers, and the four are seated so as to give all around observation. To protect the gunner from the gas and smoke a special shield is provided above the guns.

The detachment consists of one officer and nineteen men from the 69th Coast Artillery at Aberdeen Proving Ground.

Tank Company. The tanks are offensively the backbone of the force, the unit around which it is built.



Top Row Left to Right—The 4.2-inch Chemical Mortar on a T1E1 Chassis; 75-mm. Pack Howitzer Motor Carriage, T1; American 75-mm. Gun on Mark VII Self-propelled Mount.

Bottom Row Left to Right—Diamond-T Wrecking Truck Lifting a Cross-Country Wire Cart; The Mechanized Force Crossing the James River Bridge; Two-Ton FWD Truck with Liberty Kitchen.

This company comes from the 1st Tank Regiment at Camp Meade, and consists of five officers and 88 men.

It is equipped with 22 tanks, two of which are radio and command tanks (one a TIE2 and one a Model 1917 with Franklin motor), three are light tanks Model TIE1, six are 6-ton tanks Model 1917 which have been remodeled and equipped with Franklin motors, and eleven are 6-ton tanks Model 1917.

The light tank TIE1 has three speeds forward and one reverse; it can travel 3.18 miles per hour in first, 14.5 in second, and 21.9 miles per hour in third. It is engined with a Cunningham V-8 motor.

The Model 1917 tanks, redesigned and modified to take a Franklin engine, have a maximum speed of nine miles per hour. They each carry one caliber .30 Browning tank machine gun, air-cooled, or one 37-mm. gun. The TIE1 tanks are each equipped with one caliber .30 Browning machine gun and one 37-mm. gun. For each caliber .30 machine gun 4200 rounds of ammunition are carried, and for each 37-mm. gun 238 rounds. One of the TIE1 tanks is equipped with a semi-automatic 37-mm. gun.

To get the necessary amount of speed on the march and before going into battle area the tanks are transported on tank carriers, six-wheeled trucks developed in the Service and built at Camp Holabird. The company is equipped with ten carriers with solid tires and two carriers of a later model equipped with pneumatic tires for the command tanks. At present not all the tanks are carried when on tactical exercises, due to lack of carriers.

The tank carriers are engined with six-cylinder Continental motors and are capable of a speed of 33 miles per hour.

The tank company is organized into three platoons of three tanks each. The additional tanks may be used later to organize another platoon, and for mobile battle command posts for unit commanders of the force. They will always be used for training.

Machine Gun Company. The machine gun company of three officers and 70 men was sent from the 34th Infantry (motorized) at Fort Eustis. It is organized into three platoons of three guns each, or a total of nine caliber .30 Browning machine guns, with three more in reserve. All of the guns are carried on six-wheeled cross-country $\frac{3}{4}$ -ton Chevrolet trucks, one gun and a crew of six men, a driver, an assistant driver, and a squad leader on each truck. The crew for the gun is four men, the other two being riflemen for protection of the guns. All individuals carry caliber .45 automatic pistols. Five trucks, not used to carry guns, are for baggage, ammunition, and the three reserve machine guns. In addition to the trucks the company has three cross-country Chevrolet passenger cars, and will soon have for test two-wheeled machine gun carriers and two wheel-and-truck machine gun carriers. The guns are mounted on the trucks facing to the rear for fire from the vehicles, and when detrucked run on rubber tired carriages pulled by hand.

Chemical Detachment. Smoke is one of the most valuable agents in the assistance of tank attacks and in

the screening of the enemy's antitank weapons during the withdrawal of tanks from action. The chemical detachment is provided with a 4.2-inch rifled chemical mortar which can fire high explosive shell as well as smoke or chemical shell. It has a range of 2500 yards. The mortar is mounted on a self-propelled TIE1 cargo chassis, the same chassis as the TIE1 tank. A tank carrier is provided to give it road mobility consistent with that of the force. The detachment of one officer and fifteen men was sent from Chemical School at Edgewood Arsenal.

Field Artillery Battery. In addition to units which will provide ground reconnaissance, striking power, and holding power, the force has its own supporting fire units. To get the comparative value of self-propelled and portée artillery for the missions that artillery will have to have with the force, the battery is equipped with a variety of guns and experimental materiel. It has a complete portée battery of French 75-mm. guns with caissons, battery reel, and Caterpillar "20" tractors, self-propelled American 75-mm. guns mounted on Mark VII chassis, one self-propelled 75-mm. pack howitzer mounted on an ordnance track development chassis, an experimental motor reel mounted on a TIE1 chassis, one ammunition carrier on TIE1 chassis, and a Fort Sill trailer for 75-mm. gun.

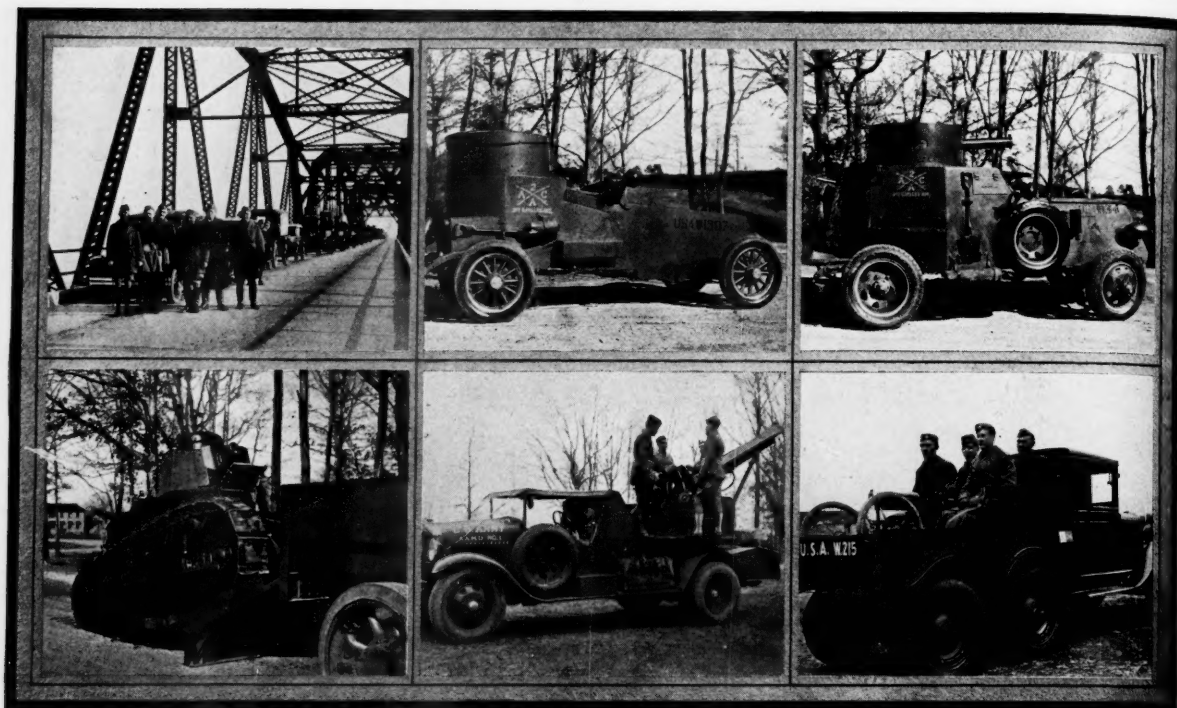
The howitzer is the new pack 75-mm. howitzer mounted on a motor carriage TI, which is the track development chassis designed by the Ordnance Department in 1929. It has maximum speed of 21.3 miles per hour.

The battery has a strength of five officers and 127 enlisted men, and is Battery A of the 6th Field Artillery from Fort Hoyle.

Engineer Company. For the inevitable field engineering duties that come up in every organization, the force has Company C of the 13th Engineers from Fort Humphreys, with a strength of three officers and 90 men. It is organized into a headquarters and three platoons. Basic engineer platoon equipment is furnished for each platoon, and in addition the company carries special bridging and other material. Its motor equipment consists of seven 2-ton FWD trucks, a Mackmobile crane and power truck, a kitchen truck, a Ford cross-country car, a motoreycle, and a $\frac{3}{4}$ -ton GMC truck.

Ordnance Company. Aside from the purely supply work of the force, which is taken care of by the supply platoon of the headquarters company, the maintenance, repair and salvage of broken down and damaged motor vehicles and materiel of all kinds is a complicated one and involves many technical and mechanical problems. The vehicle of the fighting force must be kept moving or its efficiency is seriously affected.

Quartermaster Repair Unit. The quartermaster mobile repair shop, one officer and 15 men, comes from the Quartermaster Intermediate Depot at Camp Holabird. Like the ordnance unit, it will be specially trained and equipped to take care of wrecked and damaged vehicles, and to provide for upkeep and maintenance of motor vehicles.



Top Row Left to Right—Mechanized Force Crossing James River Bridge, January 27, 1931; Light Armored Car Equipped with one Caliber-.30 Air-cooled Browning M. G. Weight 4142 Pounds; Franklin Medium Armored Car, Equipped with one Caliber-.50 and two Caliber-.30 Browning Air-cooled M. G.'s. Weight, 7138 Pounds.

Bottom Row Left to Right—Tank, 6-ton, Model 1917, Being Loaded on Carrier; White Multiple-mount Equipped with two Caliber-.50 AA Browning M. G.'s; Browning M. G. and Crew in Chevrolet Cross-country Truck.

Equipment in General. Because the force has to operate as an experimental field laboratory for the testing and developing of vehicles and weapons suitable to its use and will be progressively supplied with motor and mechanized equipment, it has, of necessity, a great variety of types of vehicles. This makes the problem of maintenance and of spare parts a difficult one, but much valuable information for the guidance of future design and manufacture will be obtained from the field tests and close scrutiny of the records. Much of the motor equipment has come direct to the force from factory or proving ground. All of the passenger cars, motoreycles, 2-ton and 5-ton FWD trucks, pneumatic-tired tank carriers, field artillery carriers, TIE1 tanks, motor reel, ammunition carrier, Fort Sill carrier, TIE2 radio tanks, kitchen trucks,

generator trucks, Franklin 1½-ton trucks, radio trucks, wrecking trucks, chemical motor mortar, and pack howitzer are new. Much of the equipment has been used only slightly, and some of it is old. The old equipment will be replaced as soon as possible with new designs.

The Franklin 1½-ton trucks are on the same chassis and have the same engine as the medium armored car and the radio armored car. The 2-ton FWD trucks have class A bodies and dual tires on the rear. The kitchens are mounted on these trucks by taking the body from a Liberty kitchen and installing a burner for gasoline. It will also burn wood or coal and is equipped with two 20-gallon water tanks and compartments to carry kitchen utensils and rations.



Steeplechasing and Point-to-Point Racing

Captain Marion Carson, 9th Cavalry

THE origin of horse-racing is shrouded in antiquity. It is believed that the Egyptians were the first people who made any effort to understand horsemanship, but they left little of record concerning their mounted sports. No doubt informal races date from the first use of the horse for riding; at least when it was first used for combat. It is easy to imagine many match races caused by the presence of a spear-point between the two impromptu entries. In those days too there were probably many horses with ambitious tendencies, who raced without the consent of their riders.

It is known that the Greeks indulged in the pastime and had regular race courses. The *hippodromus* at Elis was the most famous. Racing was started there in the seventh or eighth century, B. C., under most strict supervision, as part of the Grecian Games. Horses and riders had to report thirty days before the games started and go through a prescribed course of training. From Greece the sport was adopted by the Romans. They are credited with inaugurating the custom of having the riders wear colors. They in turn introduced it into England at the time of their invasion.

Until well into the nineteenth century conditions were more favorable for its development in the British Isles than in continental countries. The latter were suffering internal difficulties from time to time and some race meetings were organized purely to attract crowds for political purposes. As a result, most continental meets were under strict governmental supervision and even operation. This destroyed the individual initiative of the racing enthusiasts. England, while enacting many laws correcting moral and administrative abuses, did not make it a government enterprise. The rulers were usually very favorable to it and the nobility were quick to follow their lead.

Flat racing has always had more supporters than steeplechasing. The latter is not recorded at all in early accounts, and is believed to have originated in England or Ireland. One story of its start begins with a group of horsemen gathered in a tavern. The discussion of the merits of their various horses waxed quite warm. Finally a race was arranged for the following night. The start was after dark, but there was a moon. The course ran to another tavern some miles away. Any route could be taken, but it was "jump or lose," for avoiding the obstacles meant a much longer route. Clothing, equipment, and weights were optional, but *nightshirts* had to be worn.

There is a record of a race of four and a half miles over the country from the Church of Buttevant to the spire of St. Leger Church, in Ireland, in 1752. Many similar races followed, with the course laid between two well-defined and plainly visible objects. Church

steeples were especially popular for finishing markers and furnished part of the name for the sport.

Some of the races in the early days were quite strenuous. In 1805 one was run at night over a distance of eight miles for a sweepstake of one hundred guineas. The winner's time was given as twenty-five minutes, thirty-two seconds. Another record lists one of twenty-six miles on January 6, 1818, between two contestants for one hundred guineas a side. In a four-mile race at Lismore, Ireland, in 1819, the winner fell four times and the third horse six, but both finished ahead of some that didn't fall at all. The also-rans must have been poor horses, or poorly trained or ridden. The Grand National was started at Aintree in 1839 as a four-mile race for gentlemen riders. It has since made Liverpool the steeplechasing capital of England.

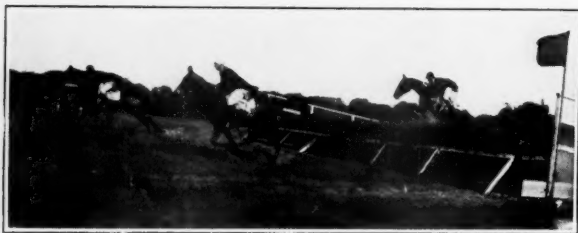
It was the hunting men who took up the new type of racing in great numbers. Most of them were too heavy to ride in the big flat races and the local meetings did not give them enough worlds to conquer. It gave them a chance to use their hunters for all of their mounted pastimes. To men who rode for real sport it furnished thrills that were not present in a run over a course without obstacles. Fox hunting furnished an incentive to "get there first," but it was quite uncertain as to direction, duration, and terrain. All of these conditions made it a natural consequence that hunt clubs were, and still are, the sponsors of most of the races over jumps.

Conditioning, training, and riding in public races require much time and some capital. Fifty or sixty years ago English army officers had plenty of the former and usually enough of the latter. As a result, many went into racing as their principal diversion. Several rivalled the leading professional riders. Major E. R. Owen holds the record of being the only man to win all three of the leading steeplechases in England. Mr. T. Pickernell rode in seventeen Grand Nationals, winning two and falling twice. Since the World War they are not so well supplied with either spare time or money, so the Army's participation in the larger races has been somewhat curtailed. However, the number of local meetings continues to be quite large and many strictly military meets are still held.

Various factors have prevented the sport from becoming prevalent in our army. The lack of suitable horses, the need of those we did have for other purposes; the necessity of constructing courses; the popularity of polo and horse shows; and the lack of knowledge of proper training methods and the conduct of meets, have discouraged the few officers who would have popularized it.

Many classes of people have been interested in rac-

ing. Some for the thrill of active participation, some for the prestige of owning winners, some as a means of honest livelihood, and some as a means of a dishonest one. The first two named classes have been the real sponsors of steeplechasing, with the third giving it some attention in Europe. The fourth class has left it pretty well alone, principally because of its uncertainty. Even if a horse is sent in to put the favorite out, there is no way of being sure that a selected horse will stand up. Pocketing for the whole distance is out of the question. A horse that is doped enough for the effect to last for even two miles would wear himself out in the first mile. There is entirely too much uncertainty for a sure-thing operator. These



Landing over the Liverpool on the Fort Riley course. Position of leading rider is good.

factors have kept the sport largely on an amateur basis in this country.

Uncontrolled and unsupervised, it is a dangerous sport. Our natural impetuosity makes us ask things of our horses for which they are not prepared. We are always wondering if they can't do a little more and hoping that they will be able to do it. Untrained and undisciplined horses are sometimes entered and unless the entry is rejected, serious injury may result. At Fort Riley, during a race meet one year, a horse was named for two two-mile races (on different days). He had not been seen in action on the course, hence an investigation as to his suitability was made. It was found that he had never been over the course, had not been in real training at all during the spring, and had just come off several weeks' sick report. Needless to say, he did not run.

Often dangerous riding doesn't appear to be dangerous to the beginner. He's so busy riding his own race that he does not realize that he is turning other people's hair grey. He continually hunts low places in the jumps, not thinking that he may cross someone and find himself buried under two horses and another rider. He goes up to a jump on a green racer half a length or less behind another horse and is quite surprised when his mount takes off in mid-stride and lands on the jump or falls beyond. All of our horses are beginners at the sport when they start racing, which is usually after we get them. Therefore, it behooves us to find out everything we can about their proper handling in order to prevent the mistakes they are apt to make.

If we apply ourselves to the study of steeplechasing as we have to polo and show jumping, we could soon have it on as sound a basis. Taken up in that way, it has many beneficial effects. It is cross-country

riding of the best kind. It fosters concentration, quick thinking, and iron self-discipline. It is a wonderful physical training. It develops daring and nerve. Properly handled, race meets more than pay for themselves and could furnish funds to send entries to the many hunt race-meets. It encourages the ownership of good horses. Every mounted post has suitable terrain for at least a point to point course.

A steeplechase course is on level ground, or nearly so, with artificial jumps. To be sanctioned by the National Hunts and Steeplechase Association, it must be at least a mile in length and contain a water jump, a liverpool, and four other jumps of specified sizes, in each mile. The footing must be turf and the races not less than two miles.

A point-to-point course is across country over varied ground and with natural or apparently natural jumps. It is a better type of course for hunter races, for usually the jumps are solid and a horse has to be a good jumper in order to finish. On the steeplechase course the jumps are of brush and the horse in some cases can drag through above the supporting frame or dirt mound.

In constructing a course, beware of low jumps. They are a snare and a delusion. Many horses put at a two-foot jump at a fast pace, are tempted to try to merely run over it. When other horses are running with them there is even more temptation. I saw one horse try it on a jump that was over three feet. He rolled over twice. The best height is about six inches under the consistent jumping limit of the horses to use the course if the jumps are solid, and at their full limit if of brush. Then they know that they must put out at every jump.

A cross-section of the track should be absolutely uniform. If turns are banked the slope should be the same all the way across. The jumps should be of even height their whole length, except that the end panels may slope up to the outside to discourage attempts at running out. The footing should be the same all the way across. Abrupt changes in footing should be plainly visible, otherwise a bowed tendon is likely to occur. A horse running at full speed from turf to plowed land suffers a terrific strain to his legs. For beginners, the flatter and more uniform the terrain, the better it will be for horses and riders. Lots of experience is required to get the most out of a mount, and still finish, over a course that includes hills, plowed ground, heavy sand or low ground. The last-mentioned is extremely bad in most localities. A heavy rain the day of the race may make it practically impassable.

At Fort Riley, half-breds are raced only two miles their first season. Then if they have shown that they are equal to it, they are put in longer races. Of course, some of these horses are much better bred than their papers show. A couple of races separate the runners from the plugs. Lots of troop officers in the past would have been ready to swear that *Glint* would never stop running, especially just after riding him in a flock on a frosty morning. He went into the race string and was ready to quit after the first mile in

any race. Some horses which were good gallopers in their younger days, but were never allowed to run, eventually develop high action. *Black Forest* was one of these. In two seasons of training and racing he really ran low only twice, once in a workout over the steeplechase course and once in a flat race. Both times he beat very good horses, but the rest of the time he "bumped his teeth with his knees."

Ability to gallop or trot long distances at moderate paces does not indicate racing ability. *Ganadore*, a half-bred that many graduates of the Troop Officer's course remember all too well, made a fifty-five mile night ride in six hours and nineteen minutes, taking second place, but when raced he finished last every time.

Jumping at speed is quite different from show jumping, for two reasons. One is that the considerable collection necessary in the careful show jumper, at each obstacle, would slow up a running horse enough to cause the loss of a race by several lengths. The other is that this change of pace, muscular contraction and subsequent increase of pace, require effort which will mean lengths more at the finish. Attempting to really collect a well-trained chaser is likely to be disastrous. He is used to being allowed to work out his own salvation, or at most, having his nose pulled in slightly, thereby putting his hind legs a little further forward. When the rider tries to do more, it cramps him and usually puts him in difficulty. Therefore, quite a change in jumping style must be taken up early in the training, if the horse has had previous experience. It is often easier to train a flat-racer who has never seen a jump than a jumper with a big reputation. The best prospect is a thoroughbred horse from jumping stock that has never been raced or jumped in a show-ring. Hunting is a good training, however.

No one who rides in races over jumps, can expect to escape an occasional fall. They are bound to come until a fool-proof horse is found. Only two things are necessary to prevent serious consequences. One is a level head which will keep the rider from asking the impossible and from putting himself in a dangerous place. The other is good hard physical condition. This can be obtained in only one way, by hard cross-country riding. Walking every day is needed too, to loosen up the legs and prevent the muscles becoming set, but riding at a gallop over varied terrain, especially on a horse that pulls, gives muscles with which to control the mount and to withstand the shock of a spill. A pulling horse during the training period has another advantage. If the rider can't learn to control him and rate him when he wishes, he should never be allowed to ride in a race. A run-away horse eventually inspires panic in the mind of the rider. This in turn makes the horse worse and disaster is even more certain than playing with an "unloaded" gun.

By "control and ability to rate" is not meant that the rider must be able to stop his horse like a polo pony. It means that the rider can make changes of

direction and cause the horse to slow the pace four or five miles an hour, instantly. He must be able to do this without fighting or frightening the animal. The ability to change direction slightly is necessary throughout any race, from the first jump to the last. The rating will sometimes be impossible for the first quarter of a mile and with a sure, true jumper can be neglected for that distance. After that the rider must have such control that he is able to place his horse in exactly the position where he can do his best running.

The officials are a most important part of a successful race meet. They make or mar it for both the spectators and the contestants. The conditions of the races must be published clearly and early. No change should be made in them after publication. The paddock judge should see that all entries are ready to start at published race time. Five minutes delay disgusts the crowd. The stewards should be fully qualified to fulfill their function of seeing that all conditions are met and that the riding is strictly in accordance with the rules. The judges should know what places carry prizes and double-check the winner of each place. On a flagged course the patrol judges must know on which side of which flags the race runs, know where they should be to see that all riders follow the course, and know what to do if someone cuts the course.

In organizing army race meets it is always well to consider the wishes of the spectators as well as those of the contestants. In a section of the country where steeplechases are unknown, it would be foolish to try to make up a card exclusively of races over jumps. Three or four flat races sandwiched in would draw a much larger attendance. A race for local civilians helps immeasurably. Be sure the distance and conditions are satisfactory to them. Stock should be taken of the horses available and the number and kind of races arranged accordingly. Green riders and green steeplechasers require a lot of room at jumps, so no attempt should be made to crowd a dozen entries into one race on a narrow course. Conversely, if only six or eight horses are in training, to make two races of three or four entries each, instead of one good one, would be a mistake. Flat races should be as long as possible consistent with an interesting finish. Half-breds should not be expected to run a mile and still be bunched. Each ounce of blood will tell in that distance and they may be strung out for a quarter of a mile when the winner crosses the finish line. Some thoroughbreds don't really run for a quarter, hence short races are not true tests for them. Remember the enlisted men who do so much of the work, and make sure they get a chance at some of the prize money.

A race meet well run throughout will have taught many officers and enlisted men a great deal about training, riding, breeding, and the capabilities of horses, it will promote vigorous riding and will have brought the surrounding country into closer contact with the post.

Military Instruction Films

Captain Alonzo P. Fox, (Infantry) Signal Corps¹

MAN, since the days when he used a club to accentuate his more captious statements, has found the spoken word somewhat inadequate as a medium of expression. Thus we find him from time to time devising adjuncts and embellishments in the form of hieroglyphs, symbols, and song. When pictures of word forms were devised, communication of ideas became an art, and the keystone of civilization was set. But inasmuch as these forms convey only words, and as these words often inadequately depict the subject, the instinct to *see* calls for a truer likeness. Of this need the picture is born. We like to see what we are to believe, and our minds are peculiarly receptive to what we see. Today, we are decidedly picture-minded.

Now a new field is about to be intensely cultivated—academic and industrial education by means of motion pictures. The practicability of this is undoubted. Retarding factors, for the moment, are lack of proper facilities for showing the new type of pictures, and an inadequately supply of well arranged and authoritative films. Both of these deficiencies will certainly be overcome. When it is realized that instruction films will soon be available depicting, for example, a noted surgeon performing operations bordering on the miraculous, and explaining in detail his demonstration as he proceeds, the real application of such films must be apparent.

The United States Army was the first institution in this country (and probably in any) to attempt mass instruction by means of motion pictures. In the latter part of 1918 and the early part of 1919 some 60 subjects were produced, portraying various phases of military training. These films were intended to assist in the training of our National army. Unfortunately, the project did not reach full fruition until after the Armistice and its real value could not then be determined. This very failure, however, should serve to impress the fact that the time involved in the production of satisfactory films renders it imperative that this work be carried on progressively before the emergency arises, if they are to be used effectively.

These films were used more or less in the years immediately after the war for instruction purposes. Some of the subjects were well conceived and portrayed. Some of the so-called "animated" pictures were especially well done and had a wide appeal. Other films were intended to teach by motion pictures what had better have been left to subordinate instructors on the ground. The real field for demonstrations of minor tactical problems remained an aching void.

As uniforms, materiel, and training methods changed,

the task of revising the existing films and producing new ones devolved upon the Army Pictorial Service, a section of the Chief Signal Officer's Office. All but 22 of the films originally made were declared obsolete and were withdrawn from circulation. A tentative schedule, at present requiring the production of not fewer than four subjects annually, will be increased to eight films annually in 1933. This project was begun in December, 1927, since which time 20 new subjects have been produced and distributed. To broaden the scope of application and to simplify their use, 15 of these later films have been distributed also in the 16-millimeter or "home movie" size. This has been a popular innovation, especially among the reserve and national guard units, as these films can be exhibited in a squad room or a recreation room by the rankest of amateur projectionists.

A system of decentralized distribution has been set up, utilizing the corps area signal offices in the capacity of local film exchanges for their corps areas. An ideal distribution within a corps area appears to be the rotation of films on schedule to the various units for short periods. In some corps areas this ideal has been so nearly approached that excellent programs are carried on throughout the year, embracing also the C. M. T. and R. O. T. C. encampments. Unfortunately this is not universally true and considerable pioneer work is still necessary to make for a better understanding and more effective use of this valuable adjunct to the usual training methods.

In the production of training films the Signal Corps works solely as the operating agency. It has the facilities for processing and distributing training films. It also has the cameramen, camera equipment, and officer-directors. The selection of the subjects to be produced, the writing of the scenarios, and the form of their presentation, the arrangement for the necessary troops and local facilities, are the responsibilities of the interested arms with, of course, the concurrence of the War Department. The Signal Corps, obviously, cannot assume these functions. In connection with the more recent pictures produced, it has been found desirable and profitable to have the officers who were detailed to draw up the scenarios do this work in collaboration with officers of the Signal Corps familiar with the possibilities and limitations of the camera.

The subjects filmed since 1927 are diversified. This is so by reason of the fact that the demands for films covered a wide range of subjects, and the endeavor has been to meet these demands, at least in part, within existing means. A partial list of these newer films is indicative:

1. School of the Soldier, Steps and Marchings.

¹Officer in charge of the Signal Corps Photographic Laboratory, Army War College.

Manual of Arms, The Medical Service with Infantry in Combat.

2. Care of Animals, The Trooper Mounted, The Cavalry Platoon in Mounted Action.

3. The Gasoline Engine, Lubrication, The Spark Plug, The Storage Battery.

4. The Tactical Handling of the Antiaircraft Coast Artillery Regiment, Defense Against Chemical Warfare.

5. Supply of a Division, Development and Deployment of the Division for Attack (Leavenworth).

6. A film to be used in antiaircraft sub-calibre rifle practice, in which the moving image of an airplane constitutes the target.

The question of what subjects may advantageously be "picturized" is a much mooted one. Granting that unlimited production facilities were available and that a very comprehensive library of subjects were already in existence, practically any subject which can be satisfactorily demonstrated would be a proper selection. However, only limited facilities exist, and the film library is in a more or less embryonic state, so that the choice in each instance should be one to meet the most insistent need, and one which lends itself to motion pictures—the essence of which is action. Generally speaking, the wider field of application of these films is in the R. O. T. C., the National Guard, and the Reserves, where so much of the instruction, particularly in the realm of minor tactics, is abstract and theoretical. Qualified instructors are scarce and trained troops to stage demonstrations simply do not exist there. Any means to make the instruction live and appealing is welcome. The map problem and sand tables are reliable stand-bys. The motion picture is an innovation, but if intelligently used it serves to amplify and impress the subject.

Almost invariably in a discussion of this subject, the unfortunate who has been button-holed will concede that this form of visual instruction is practical and that "it would be a fine thing" if instruction films could be had on military courtesy, care of the uniform, and the like—which is exactly what we did not want him to say. A capable corporal is well qualified to teach these subjects, along with the manual of arms and the care of the rifle. To demonstrate properly the combat principles of the squad, the section and the platoon is another problem. These and similar subjects as distinguished from purely mechanical instruction are more readily adapted to motion pictures and can be made both interesting and instructive.

It should be obvious that motion pictures are not intended to displace any of the usual forms of instruction. They are intended rather as adjuncts—the animated cousins of the lantern slide. They should serve to accentuate the high-lights of a subject. To attempt more than this in a picture is to convert it into a memory test which leaves the audience confused and befuddled. Too numerous and too lengthy titles are not easily assimilated; they retard the action and induce boredom. Likewise, experience indicates that an instruction film should rarely exceed two reels

in length. If an audience retains rather vividly five or six salient points the film justifies itself.

The introduction of "talking" or sound films revolutionized the film industry. Whatever the opinion may be as to merits of the commercial type, the advantages of this new element for instruction are obvious. True, the recording of voice and incidental sounds has complicated film production immeasurably. Too, the exhibition of such pictures is not the simple task as was formerly the case with silent pictures. The equipment necessary for production and exhibi-



The Heart of the Sound Studio: the Monitor, or Mixing Booth. The Operator Controls the Volume of Sound as it is Photographed on the Film.

tion is expensive and cumbersome, but the silent picture has practically disappeared from the entertainment screen and its days are numbered in other fields as well.

The Signal Corps may "point with pardonable pride" to the fact that it is the first federal government agency to equip itself for the production of sound films. The United States Army, it is believed, is the first in the world to take this progressive step. The first films produced on a limited scale will issue during the summer of 1931. At present the only available facilities for exhibition are in the larger post theatres. The production of the silent variety will continue until portable sound projection equipment, readily transported and set up, can be procured in quantity. The present prohibitive cost of such equipment is a real obstacle.

The talking films contemplated for the immediate future will be scored in the studio; that is to say, the films will be shot in the field as ordinary silent films and the lectures will be recorded later. This eliminates the many difficulties encountered in attempting to record speech in the open—where practically all training films must necessarily be filmed. It has the advantage also of permitting the lecturer to see exactly the finished scene as it will appear to his audience and to permit the absolute synchronization of the speech with the demonstration.

As has been indicated, the Army is not wholly "sold"

on the use of films in conjunction with training, but on the contrary, a considerable amount of inertia, which in time will be overcome, militates against their general use. Just where they are to fit into the scheme of training must be determined if they are to be effective. In the Regular Army, where instructors and facilities are amply available, the need for these films in the regular training season is not urgent. During the closed season of the year, however, when garrison schools prevail excellent use may be made of them to diversify the instruction. The regimental, or other unit, operations officers should acquaint themselves with the subjects pertinent to the training of their



Scoring the Training Film: The Prepared Lecture is Delivered into the Microphone in Synchrony with the Scenes as they are Projected on the Screen.

organizations and in their training schedules make proper allotment of hours for their exhibition.

At this point it is probably not amiss to remark on the best procedure in the use of any instruction film. A very common tendency is merely to stage a show, often of several unallied subjects, and let the pictures teach what they can in one hurried showing without comment or discussion. The better practice, and one fruitful of results, is to select, first of all, a film that deals with current training. A preliminary explanation of what the film is intended to depict is certainly in order. After the exhibition a discussion elaborating upon the presentation will serve to confirm its impression. Oftentimes a second showing is desirable if the "saturation point" has not been reached.

The hours of armory training for the National Guard, it is realized, are limited and each hour must be packed with 60 minutes of instruction. On the other hand, because of the limited drill area, even simple tactical problems are difficult to demonstrate or illustrate. A judicious selection of applicable films would probably serve to take the mystery out of this phase of training. As a matter of fact, certain units of the National Guard of the District of Columbia are making quite extensive use of films during the winter months. They have served to heighten the interest and

also to build up attendance. Guard company commanders, naturally, are loathe to part with their units, which often need as much training in the fundamentals as time will permit. They cannot well object, however, to a break in the routine of instruction which is primarily designed to assist them in their task.

Except for short periods of active duty training, the Reserves are restricted almost entirely to theoretical instruction, lectures, conferences, and map problems. It is the task of the regular officers on duty with these units to make this instruction as interesting and agreeable as possible. In some of the units, more fortunately situated than others, having the means to hire an operator and projection machine, excellent results have been achieved by means of motion pictures. They realize that the reserve officer is often a "tired business man" in fact, and that he is not at all averse to assimilating instruction in a sugar-coated form. Here again the attendance curve is constantly rising.

It will be objected that the hiring of an operator and machine is not always possible, or that the means are not available. It was to meet this contingency in part that the sub-standard "home movie" type was placed in distribution. The machines are so widely used that almost any representative group will have access to one for this purpose. If not, one can usually be hired for a small sum and, as every individual is a potential operator, no high powered technician is required.

In the R. O. T. C. units, the training films have received their most extensive use. It is from the instructors of these units that the most insistent demands and the most thoughtful criticisms have come. It is not astonishing that this is so. These instructors are associated with teachers who must constantly strive to keep youthful minds pointed in a very definite direction. They are constantly casting about for new ways and means to accomplish this. In the course of events the military instructor does likewise and very often resorts to the film as his gesture of modernity. If his first selections are happy ones he may become a confirmed user; if not, the aforementioned criticisms are sometimes forthcoming.

The courses at our special service schools are well planned and generally excellent. I would not purpose that the training films supplant in any way any part of these courses. However, in view of the great portion of time each officer must necessarily serve with the Reserves and similar units, I feel that some part of these courses might well be devoted to acquainting him with the art of visual instruction and what facilities the Army has available for this purpose.

I should like to leave you with the thought that the Army is committed to a real program of training film production. Much serious thought is expended in their conception and great care in their production and presentation. They are designed primarily to amplify and diversify military instruction. A real effort is made to render their use simple and practicable. They are not the brain-children of faddists but represent the Army's effort to apply an art which is recognized generally as an excellent medium for instruction.

Training a Cavalry Regiment in Teamwork

Colonel Walter S. Grant, 13th Cavalry

MY FIRST year's experience as Colonel of the Thirteenth Cavalry impressed me with the belief, that, among the many duties imposed on a regimental commander, the most important (aside from maintaining at a high level the morale and spirit of the command) was the development of tactical teamwork in the regiment.

This conviction arrived at, the question was: "Where to begin?"

Through the gloom of difficulties that arise in present-day garrison life with respect to drawing up and carrying out systematic schemes of higher training, to obtaining a full complement of officers and men with which to train, and with respect to the host of other obstructions that those who serve with troops so well understand, the answer suddenly emerged: "Plunge in anywhere!"

Great Britain's "Contemptible Little Army" plunged in at Mons. There was nothing systematic about that. They came from their Aldershot training and, without preliminaries, banged into contact, desperate fighting, defense, retreat, rear-guard action, outposts, support of adjacent flank troops, advance, advance-guard action, frontal attack, pursuit, attempted envelopments, trench warfare,—all a jumble when compared to a progressive, systematic peace time plan of tactical training. They learned the art of war by receiving and giving blows, and by applying the basic principles of war, aided by common-sense, to the actual necessities of the moment; and they came out, magnificent and victorious.

They made mistakes; so would we. But they got somewhere; so would we.

The first thing to do was, from a full schedule of various and sometimes conflicting duties, to wrench the necessary time.

Two days per month were arbitrarily set aside, sacred and inviolable, for regimental training days.

All dressed up but nowhere, yet, to go! What next?

The regiment had been detailed to conduct some tests for the Cavalry in anti-aircraft combat—a test from the cavalry point of view of the Training Regulations on the subject. Popular opinion conceived the greatest menace to the Cavalry to be from airplane attacks. Bodies of Cavalry seemed particularly susceptible to hostile airplanes. Here was a starting point. Devise formations and tactics to perform ground missions in spite of hostile airplanes. The test of Training Regulations was to be handled by tests of actual firing. The experiments in formations and tactics could go on hand in hand with these separate firing experiments.

Also, reduce the tactical problem to be solved to its simplest terms; remember that tactics are as fluid as water; that tactics are invented to meet conditions as

they exist; realize that their operations are, fundamentally, matching wits with the enemy; decline to be bound too strongly by formal, crystallized conceptions; and go ahead.

The problem drawn up to serve as a vehicle for these tactical experiments, this training in regimental teamwork, was the simplest. Hundreds of cavalry officers can follow its outline without a map since it was drawn up for use on the Fort Riley reservation, but a map is furnished.

The Problem

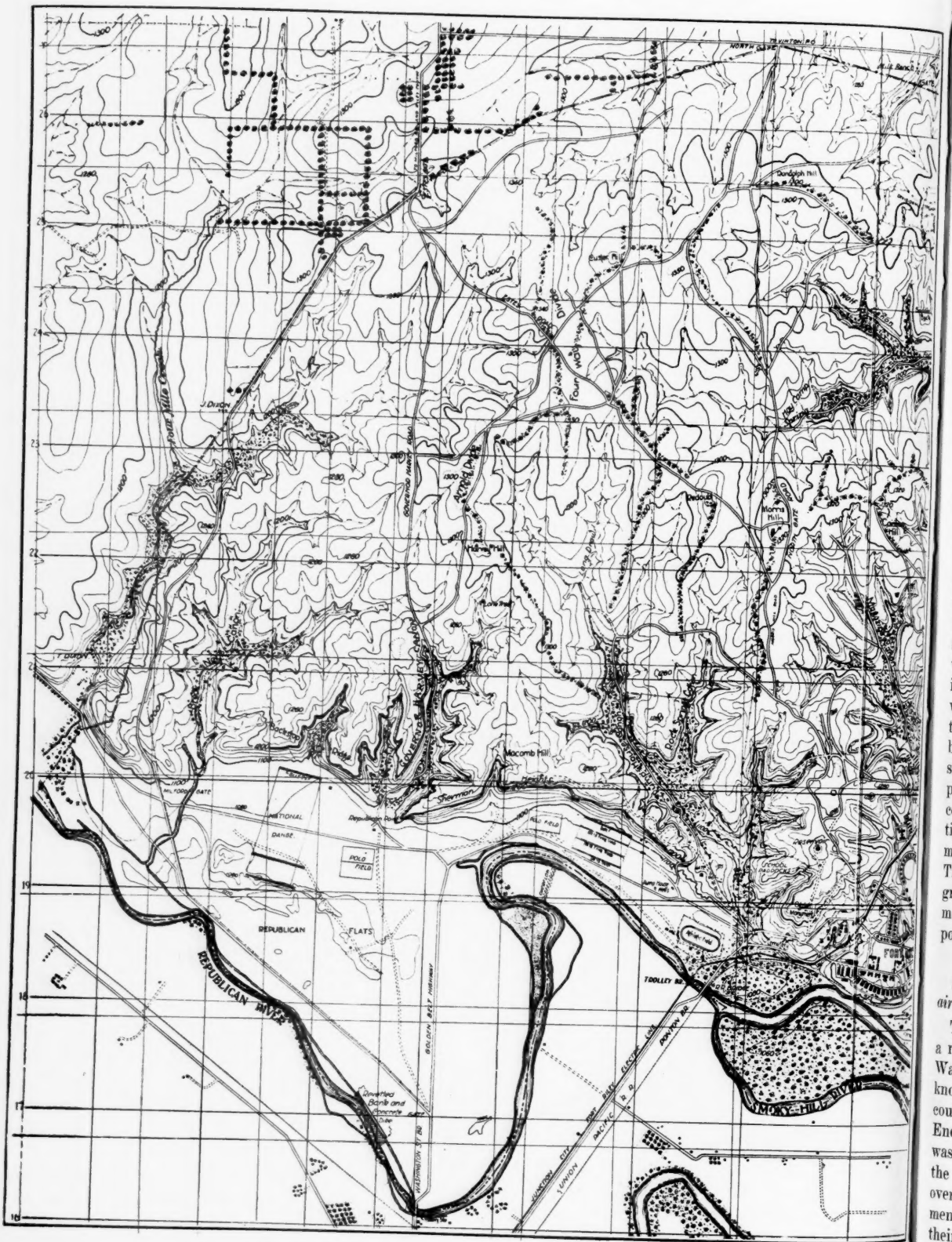
General Situation: Blue and Red have been fighting for day along a line running generally northeast from RANDOLPH HILL. Blue is attacking. Blue faces northwest; Red, southeast.

Special Situation (Blue): The 13th Cavalry (Blue), which has been behind the blue line reconstituting itself, was ordered to JUNCTION CITY. It arrived there before daybreak, September 4, 1930, and bivouacked in the woods on the north bank of the REPUBLICAN RIVER, east and west of the WASHINGTON STREET BRIDGE.

Through mounted patrols, sent out from the regiment early on September 4, and other sources of information, it has been established that the extreme right, or western end of the Red line, is located on RANDOLPH HILL; that there are no Reds west of the MORRIS HILL—RANDOLPH HILL Road; that a Red battery has been located in position 2400 yards due northeast of NORTH GATE; and that Red appears to have no knowledge of the movement, or the location of the 13th Cavalry.

At 7:00 A.M. the 13th Cavalry receives orders to move north and attack the Red right flank at 11:00 A.M., September 4, 1930.

Now a word of explanation. For the purposes of more thorough training it was decided that the preceding situations would serve as a framework into which certain steps would be fitted. It was decided that as much time as necessary would be devoted to each step; that the problem and its solution would be a continuing one that might take many days for its accomplishment; that on each regimental training day the regiment would start at that place in the problem where it had left off on the preceding training day. It was decided that the exercise would be neither a maneuver (so called), nor, in its early stages, a test of the ability of officers to make quick decisions in the field, and express them in the form of orders. It was to be considered a *drill* in various phases of field operations. It was to be carried out from the viewpoint that tactically, one must learn to creep before he can walk, and to walk before he can run. On the day preceding each regimental training day, a conference of all officers and noncommissioned officers of the regiment would be held, and the different steps



Section of Fort Riley Reservation Covered in the Maneuver.

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to be carried out the succeeding day, with the tactical reasons therefor, would be carefully explained by the regimental commander.

At last we were plunging in, and the successive steps of the problem will now be explained.

First Step

To emphasize the necessity for establishing and clearly indicating the various common posts—regimental, squadron and troop.

The regiment started the exercise concealed in the woods on the north bank of the Republican River to the east and west of the Washington Street Bridge. In order to secure concealment from airplane observation, and to minimize loss in case of detection and possible air attacks, the regiment was pretty well dispersed through the woods and brush. This made control by each unit commander more difficult.

Sure and certain control, and quick transmission of orders, demand that each squad leader know where his men are; that each platoon commander know where the squads of his platoon are; that each troop commander know where his platoons are, and so on. To establish a framework for quick transmission of orders, contact points are needed. These contact points are the various common posts where the unit message-centers operate.

To facilitate finding these command posts, the Regimental Plans and Training officer had provided for each command post a small canvas sign, stencilled in black as C. P., 1st Squadron; C P Tr E; etc. These signs were about 8 inches high and 12 inches wide, with vertical seams at each end, through which passed iron pins about 2 feet high and $\frac{1}{2}$ inch in diameter, with the top ends bent into hooks. These signs could then be planted in the ground or hooked over the branch of a tree. These signs were carried on the saddle by selected men, and as soon as units were in place, were set up. As soon as set up the next higher commander was informed of, and shown their location, and when the absence of hostile airplanes permitted movement, messengers were sent to locate them. This gave each subdivision commander a controlling grip on his unit, though he might not see anything more than the personnel of his immediate command post.

Second Step

To emphasize the necessity for concealment from airplane observation.

This may seem rather rudimentary but there was a reason for it. The 13th Cavalry had arrived at the Washington Street Bridge without its presence being known. It still had to go about five miles over open country to reach a position from which to attack. Enemy planes were assumed to be active. Daylight was coming on. If the presence of the regiment in the woods was discovered, their five mile advance over open country would be subject to constant harassment, and they would arrive at the jump-off line for their attack with their fighting edge already dulled.

To stimulate the troops to take an interest in concealing themselves, a Red airplane was secured from the

16th Observation Squadron to work during the problem. The plane was given information of the general situation, and was told that the Red right flank rested on Randolph Hill. It was also given the mission of watching for indications of enemy troops in the country south of Randolph Hill, west of Morris Hill—North Gate road, and as far south as the southern limits of Junction City, particularly with reference to any indications of an attempted attack on the Red right flank.

The plane took the air at 9:00 A.M.; the troops were already in position in the woods, and as the plane came over, all movement ceased. Although the plane returned, the presence of the troops was not discovered, and thus the beginning of their approach march, unsuspected by the enemy, was facilitated.

Third Step

To experiment as to the possibility of moving large bodies of horsemen over open country by irregular movement forward of individuals, to reach sheltered positions from which further advance can be made, thus increasing surprise effect, and reducing time during which the command might be subject to observation by, or fire from, hostile aircraft.

Under the terms of the situation the advance of the 13th Cavalry to its jump-off positions for the attack might be divided into three phases; first, that part of the advance during which the command might be subject to fire from hostile aircraft only; second, that part of the advance during which the command might be subject to fire from hostile aircraft and artillery only; third, that part of the advance during which the command might be subject to fire from hostile aircraft, artillery, machine-guns and small arms.

In the framing of the problem, in order to facilitate analytical treatment, the Red battery of artillery was arbitrarily placed at such a distance behind the Red line that its southern limit of effective fire was just north of the Morris Hill-Estes Gate road, west of Four Way Divide. That permitted the terrain to be roughly divided into three physical areas corresponding to the three phases of the advance: first, from the river to the Estes Road, where the command would be subject to fire from hostile aircraft only; second, from the Estes Road to the jump-off position for the attack where the command would be subject to fire from hostile aircraft and hostile artillery; third, from the jump-off position to the objectives of the attack where the command would be subject to fire from hostile aircraft, artillery, machine-guns, and small arms.

In the first area, corresponding to the first phase, a peculiar situation, from a topographical point of view presented itself. That area could be divided into two parts—one part extending from the river north to the rimrock, the other extending from the rimrock to the Estes Road. If troops should advance across this latter zone, even by successive units in a very scattered formation, to the Estes Road and form there, their movement could easily be picked up because the Estes Road is entirely in the open, and the gradual

increase in size of units forming along this road would be noticed. But if the troops should advance across the first zone from their position along the river to the shelter of the trees in some of the cañons that indent the rimrock, there was a chance that they might not be detected, because the movement from one hiding place to the other might be carried out so as to deceive the hostile airplanes, and the gradual increase in the size of units in the cañons would not be seen due to the shelter of the foliage.

This deception of the hostile planes was the controlling idea in the third step. The regular advance of columns on a road can be easily picked up by airplanes. But could single horsemen, well separated, moving by irregular routes, halting in place when a hostile airplane flew over and facing in the reverse direction, then resuming their irregular march, and slipping rapidly into their sheltered rendezvous after the hostile plane had passed, gradually be built up into a large force, well forward, without its presence being detected? In other words, could infiltration tactics be adopted by Cavalry as against hostile airplane observation?

The experiment was tried. The regiment was ordered forward, to be built up in two groups—that part west of the Washington Street Bridge, consisting of the 2d Squadron, Troop A (less MR platoon), and the Commander's Group, Forward Echelon, to be built up in Governor Harvey Cañon; that part to the east of the bridge, consisting of the 1st Squadron, the MR platoon of Troop A, and the Machine Gun Troop, to be built up in Pump House Cañon. In order to avoid too great dispersion of groups, the original plan was to have the two groups built up in Breakneck Cañon and Governor Harvey Cañon, respectively, but the National Range was in use, and the groups had to be slipped to the right.

Officers preceded the groups to receive and assign locations to the men as they came in, and the arrivals were quickly placed under cover and all other movement prevented. Command posts were quickly established in the new location and clearly marked. Plenty of time was available—the country traversed was free of hostile ground troops—these were necessary requisites for such a method of advance. The men were gradually and successively fed out of the old location with definite instructions as to what they were to do. They threw themselves into the spirit of the game with the greatest interest—they were matching wits with the observer in the plane—they were inventing tactics to meet a certain situation. Within an hour the group destined for Governor Harvey Cañon was, with only one or two exceptions, safely there, under cover, undetected by the hostile plane, and ready for the next step of the advance. They had accomplished this over perfectly flat and open country. The other group had a simpler problem; they had the advantage of cover along the river almost to a point opposite the mouth of Pump House Cañon, where by rapid movement during temporary absences of the hostile plane they might have been able to cross the open country between the river and the shelter of the trees in the cañon. But

here orders of the squadron commander went wrong, and the troops did not start.

It was interesting to read the log of the airplane observer after the day's exercise was over. The Governor Harvey Cañon group had succeeded. There was little question but that the other group would have succeeded had they started. The advantage of this method was the gaining of ground forward without detection. The disadvantage was the time during which the troops were more or less out of hand, and the dispersion of the two groups.

On the next regimental training day the exercise was started with both groups in position under cover in their respective cañons, and the exercise progressed to the fourth step.

Conclusions

As a result of this experiment these conclusions were drawn.

This method of advance is practicable—

- (a) When concealment is more valuable than time.
- (b) Over short distances.
- (c) When troops are well disciplined.
- (d) When their morale is good.
- (e) When the locality to which they are going is visible from the starting point; or if hidden from the starting point, is well known or easily found.
- (f) When all men go to the same locality, or two points close together.
- (g) When there is no danger from enemy ground troops.

This method of advance should not be attempted—

- (a) If troops are raw and comparatively untrained.
- (b) If morale of troops is poor.
- (c) If localities to which individual men are to advance are not easily found, are widely separated, or are at a great distance.
- (d) If hostile forces are close by.
- (e) If time is more valuable than concealment.

Fourth Step

To experiment with methods of moving the regiment forward, mounted, when exposed to fire from hostile aircraft, the movement being uncomplicated by any other hostile fire.

The regiment having been moved forward as individuals, or in very small parties in which the individuals were well separated, and formed in two groups without detection by, and under shelter from, airplane observation, one group in each cañon, now found itself from 3½ to 4 miles from its objective, Randolph Hill.

To reach its jump-off position for the attack it had to cross open country where it was impossible to build up large groups for an attack in an advanced location without detection. The tactics of infiltration had to be abandoned.

We must realize that from the very beginning of the movement forward, the Regimental Commander had had in mind a tentative plan for his attack, which he hoped to put into effect with such variations as might be dictated by conditions found on his later personal reconnaissance of the terrain.

For the sake of clearness in discussing the movement of the regiment forward to its jump-off position for the attack we shall assume that this plan was as follows:

Machine-gun Troop to Custer Hill to open fire on enemy position on Randolph Hill;

1st Squadron (less Tr. A [less MR Plat.]) to the draw about 800 yards northwest of Custer Hill to attack dismounted to the east, towards Randolph Hill;

2d Squadron to the crossroads about 1500 yards north of Custer Hill to attack mounted towards the east;

Troop A (less MR Plat.) as regimental reserve to western slope of Hill 1340;

Regimental Command-post to Hill 1340, about 1500 yards northwest of Custer Hill.

Also for the sake of clearness it might be well to repeat that in framing the problem the Red battery had been arbitrarily located at such a point in rear of the Red line that its fire on rapidly moving targets, such as Cavalry in dispersed formations, would not be effective on or south of the Estes Road.

Since one condition of the problem was that Red airplanes were numerous and very active, it could be expected that the movement of the 13th Cavalry northward to the Estes Road from its sheltered positions in the cañons would be quickly picked up. The regiment might therefore expect to advance under fire—but up to the line of Estes Road this fire would come from weapons discharged from the air, not from the ground.

Now, in the approach march from the cañons to the Estes Road, the troops could resort to movement only, or to a combination of fire and movement, to counteract the enemy's aircraft fire on them. By movement only, is meant the rapid advance of the regiment in dispersed formations, such as column of flocks, line of flocks, or successive lines or echelons of flocks. By a combination of fire and movement is meant the same sort of rapid advance, accompanied by the fire of rifles or pistols at approaching hostile aircraft. Should movement only be used, the hostile planes could descend practically to the heads of the troopers, and would be unimpeded in their attack on the horsemen. Should the second method be used, the fire, or actual threat of fire, on the hostile airplanes, would tend to keep them up, and the danger from their attacks would become less. So, for the approach march in this zone, a combination of fire and movement was adopted.

In an advance against *ground* fire, one of the combinations of fire and movement is as follows: Alternate subdivisions rush forward under cover of the fire of other subdivisions which remain stationary until it becomes their turn to rush forward under cover of the fire of those which have already moved forward. This method was applied in the advance against *air* fire.

For example, let us consider the troops that trickled individually into Governor Harvey Cañon. They were: 2d Squadron, Regimental reserve (Tr. A [less MR Plat.]) and The Commander's Group.

In the approach march from the cañon to the Estes Road, the scheme adopted was this. As the squadron emerged from the cañon preceded by a small covering force it formed line of flocks. Each troop consisted of two rifle platoons and a machine-rifle platoon. One rifle platoon of each troop, in line of flocks, would ride to the front at a fast gait until it had gained about 300 yards. Here it would dismount, the men would link in couples, with the couples well staggered and dispersed, would form a line of flocks dismounted a short distance in front of the horses, and prepare to fire on hostile aircraft. This done, the rifle platoon in rear, in line of flocks, would rapidly ride past the advanced platoon until it had gained about 300 yards to the front, when it would repeat the maneuver of the other platoon. The machine-rifle platoon of each troop, in line of flocks, followed close after one of the rifle platoons, advancing when it did; halting, dismounting and dispersing when it did; not removing the machine-rifles from the packs, but relying on the fire of the dismounted rifle platoon for its protection.

A deep "cloud of horsemen," made up of individual troopers riding with intervals of from ten to twenty yards was thus formed.

The regimental reserve followed the 2d Squadron at a distance of from 1000 to 1500 yards, and similarly moved forward by successive rushes of its squads.

The commander's group followed the regimental reserve close enough to be protected by the latter's fire against hostile aircraft.

Off in the other cañon the machine-gun troop followed the 1st Squadron close enough to be protected by its fire. It did not attempt to unpack its machine-guns.

The 2d Squadron was the guide. It moved to the north with the Governor Harvey Road as its axis until it was near its first assembly position, which was that part of the Estes Road that extends from the bottom of the gully one-half mile northwest of the crossroads at Four Way Divide to Estes Gate.

The 1st Squadron moved from Pumbo House Cañon towards the northwest in the extended fashion described, joining up with the 2nd Squadron on an approximate east and west line through Harvey Hill. Guiding on the 2nd Squadron it then advanced on its first assembly position which was that part of the Estes Road extending from the crossroads on Four Way Divide to the bottom of the gully about one-half mile to the northwest.

On the Harvey Hill line, the acting Regimental Executive Officer took charge to superintend moving the troops forward to the first objective, while the Regimental Commander and certain personnel from the Commander's Group galloped forward to Custer Hill to make a personal reconnaissance.

As the Regimental Commander turned over the line to the Executive, and started forward, he noticed that far to the east and far to the west, echeloned by platoons in dispersed order, some galloping forward, others dismounted prepared to fire, but all advancing systematically and rapidly, stretched the regiment. Again, upon returning from the reconnaissance on

Custer Hill to the Estes Road to meet the troops, no cavalryman could fail to be impressed at seeing, against the background of the rolling, dun-colored, open prairie, those swarms of galloping troopers, alternately advancing and dismounting, pulling themselves forward hand over hand as it were, and converging on their assembly positions along Estes Road; dispersed for protection, coalescing for attack.

Near the Estes Road they halted, linked in couples well dispersed in rear of the road, formed dismounted in flocks with leading troopers on the road just out of effective range of hostile artillery fire, prepared to protect themselves against hostile aircraft, and awaited orders.

Officers' call was sounded, and in the gully, in rear of the center of the line, the Regimental Commander gave orally his orders for the attack.

* * *

About this time appeared the October number of THE CAVALRY JOURNAL. In an article "Cavalry in Modern Combat," by General Summerall, the Chief of staff appeared this paragraph: "While it (Cavalry) is more vulnerable than Infantry to attack by aviation, it must rely upon its antiaircraft weapons as well as its normal arms and upon dispersion when it cannot find concealment. No arm is exempt from losses in battle, but there is no reason to assume that Cavalry cannot develop tactics and methods which will enable it to preserve its fighting efficiency to a degree comparable to that of Infantry."

We evidently were not wasting time in our experiments.

* * *

This exercise, up to the line of the Estes Road was repeated on several successive training days, as a drill, to see that it was thoroughly understood, with the *assumed* but not the *actual* presence of hostile airplanes. Then, thanks to a post order which put the 16th Observation Squadron; Battery D, 18th Field Artillery; Troop A, 1st Armored Car Squadron; and 1st Platoon Troop A, 9th Engineers, at the disposal of the Commanding Officer, 13th Cavalry, for combined training, it was again carried out.

The addition of these troops extended the instruction in teamwork, but made several variations necessary. Again the two groups of the 13th Cavalry were to be formed in their respective cañons. Troop A, 1st Armored Car Squadron was to take post at the northern exit of Governor Harvey Cañon, and upon orders move north with the following mission:

(a) To observe the enemy right flank on Randolph Hill;

(b) To watch for any enemy movement south along the Governor Harvey Road, and west or southwest from North Gate and vicinity, or across country from those directions;

(c) To reconnoiter the country north of the northern ends of Governor Harvey and Pump House Cañons, and west of the road from Morris Hill to North Gate, for any patrols or parties of the enemy.

The 1st Platoon Troop A, 9th Engineers was to form part of the regimental reserve in Governor

Harvey Cañon. Battery D, 18th Field Artillery was also assigned to the group in that cañon.

The participation of the 16th Observation Squadron was arranged for as follows: One flight and one or more single planes were designated as Red planes. They received instructions to fly at that ceiling at which they would normally fly if under fire from riflemen on the ground. Should troops on the ground fail to protect themselves by simulated rifle fire, the planes were to swoop and simulate attacks on unprotected troops. If mounted rushes were too long and platoons became too much separated from their protecting fire, the planes were to swoop. One plane was also designated as a Blue plane to work with the Blue artillery (Battery D).

The only change made in the advance was to have the battery follow the right (interior) wing of the 2nd Squadron, about abreast of the reserve, in its normal protective formation. It was to protect itself against hostile aircraft, also, by the two machine guns mounted on its carriages for that purpose.

With these changes the exercise was again carried out on the presence of representatives of the Cavalry Board, the Academic Division of the Cavalry School, and Post Headquarters.

At this point it is convenient to make certain observations. When the presence of hostile planes was assumed, it was imagined that they were numerous, active and aggressive; that one flight, or more, was constantly over the troops, watching for a chance to make an attack on them; and that their mission was to break up the advance of the Blue Cavalry as a primary means of protecting the Red right flank from attack. It was also considered that there was plenty of time to reach the jump-off positions and attack at the hour set. These were the underlying reasons for advancing by a method that would be slower and more laborious than a continuous mounted advance. However it might be stated here that the method proved to be not very much slower than a continuous advance at a trot, because the 600 yard rushes were made at a gallop, and due to the rapidity with which men dismounted and linked, the rushes followed each other very quickly.

The conditions of the problem, and the presence of the armored car troop, and covering detachments, well in advance, in open country, insured early information of any Red counter movement of ground troops which might present a greater danger to the advancing troops than the fire from hostile airplanes.

But, as opposed to imagination, on the day when the planes actually took the air and one hostile flight of three planes, and one single hostile plane in addition, circled about looking for vulnerable targets that could be attacked with reasonable security to the planes, the fact soon became apparent that danger from the hostile planes was not continuous but occasional. This was because the planes were few, and frequently in their circling were quite far away from the troops so that there were periods of almost as much as five minutes, when the planes were too far away to be dangerous, and yet were in sight. In the ab-

sence of any immediate danger from hostile planes it was unnecessary to advance by the successive rushes of mounted subdivisions. In five minutes the regiment could advance almost 1200 yards at a regulation trot. Based on the actual activity of the hostile planes the regiment (not forgetting the machine-rifle platoons, reserve, etc., in successive lines in rear) might just as well have advanced in line of troops, each troop in line of flocks, dismounting all riflemen only when the planes actually threatened. Or better, in order to avoid a long and continuous, though sinuous, line, the regiment might have advanced in line of troops, each troop echeloned by platoons in line of flocks, all dismounting when the planes actually threatened. In these two cases it would have been unnecessary to link. Time could be saved and security of horses better insured by having the odd numbers hold in couples, well staggered, and the even numbers prepare to fire.

Fortunately the greater part of the advance was over country that made it difficult for the planes to fly low in cañons or behind hills or woods, and suddenly emerge before it was possible to assume, dismounted, a protective formation. It was unnecessary at any time to resort to pistol fire or rifle fire from the backs of horses.

Conclusions

As a result of this experiment these conclusions were arrived at:

This method of advance by the successive rushes of mounted subdivisions under the protection of dismounted rifle fire against hostile aircraft is entirely practicable, when the ground permits, during those periods in an advance when hostile planes are actually and constantly threatening, provided that time is of less importance than morale and casualties.

That this method of advance is only one of a number of methods, that has its application under certain conditions, and must not be adopted as a set tactical conception, irrespective of the necessities of the problem to be solved.

That ordinarily in a battle involving all arms, mounted Cavalry, in its dispersed formations, would offer such a relatively poor target to hostile airplanes, that the times when this method of advance would have to be adopted are relatively few.

That this method of advance is excellent as a drill in control of extended lines in dispersed formations.

That dismounted rifle fire against hostile airplanes is the best protection that Cavalry can ordinarily provide for itself.

So much for the advance to the Estes Road. The next step was to issue the attack orders, and for the various subdivisions of the command to proceed to their jump-off positions for the attack. This brings us to a detailed consideration of that step.

Fifth Step

To move the regiment forward, mounted, when exposed to fire from hostile aircraft and artillery.

As stated before, on arrival of the troops at the Estes Road the regimental commander, having returned from his personal reconnaissance to Custer

Hill, where he had gotten in touch with the armored cars and covering forces, and had observed the general disposition of the enemy's right flank, issued orally to the assembled officers, his orders for the attack.

These orders were, in brief:

The command to attack the Red right flank, rolling it up toward the east;

Machine-gun Troop to vicinity of Custer Hill to open fire on enemy on Randolph Hill;

1st Squadron (less Troop A [less MR Platoon]) to the draw about 800 yards northwest of Custer Hill to attack, dismounted, the enemy on Randolph Hill;

2nd Squadron, reinforced by 1 platoon, Troop A, 1st Armored Car Squadron, to the crossroads about 1200 yards north of Custer Hill, to prepare for a mounted attack towards the east;

Battery D, 18th Field Artillery, assisted by one Blue plane, 16th Observation Squadron, to the draw about 1000 yards due west of Custer Hill, to silence Red battery; later, on call from commanding officer, 1st Squadron, to assist dismounted attack by firing on enemy on Randolph Hill;

Troop A, 1st Armored Car Squadron (less 1 platoon attached to 2nd Squadron) to reconnoiter north of the east and west road through North Gate, to detect, resist, and report any hostile movement towards the left flank or rear of the 2nd Squadron;

Regimental reserve (Troop A [less MR platoon], and 1st Platoon, Troop A, 9th Engineers) to western slope of Hill 1340 (400 yards east of Estes Gate), and await orders;

Commander's Group, Forward Echelon, to Hill 1340, east of regimental reserve;

Movement to commence at once, and attacks to start as soon as troops have arrived in position ordered, except that attack by 2nd Squadron to be made only when specifically ordered by Commanding Officer, 13th Cavalry;

Command Posts of all units to be plainly marked with signs provided;

Combat trains (assumed in Governor Harvey Cañon) to be brought rapidly to draw on Estes Road, and released to organizations;

Regimental command post to hill 1340.

In this phase of the operation teamwork between the cavalry units became less necessary. Since the covering forces had discovered no threatening movement by the enemy, the various subdivisions advanced to their jump-off positions independently, by the shortest route, and were free to adopt their own formations against hostile aircraft and artillery fire. On the other hand, the teamwork between artillery and cavalry was of more importance, because the artillery could now be used to counterbattery the Red artillery, occupy its attention, and enable the cavalry to still pay particular attention to hostile aircraft.

Certain features of this advance to the jump-off positions are worthy of note. The method of advance used from Harvey Hill to the Estes Road was no longer compulsory. Subdivision commanders were permitted to use their own discretion. Time now

being an important element the tendency naturally was to discard the formation.

One squadron, advancing from the Estes Road in line of squad columns, mounted, was considered by the planes as offering a vulnerable target, and it was attacked from the air. This forced for a moment a return to the "hand over hand" method of advance. The battery, moving by the flank, also presented a vulnerable formation, and was attacked.

However, it must be said that in this advance the troops were getting close to that stage of the operation where they would have to concentrate more definitely on the actual job they had to perform, and accept losses. The job was narrowing down to that of driving an enemy on the ground out of his position. Concentration on that would of necessity make it less easy to devise ways and means of avoiding losses. In fact too much consideration given to avoiding losses would tend to a defensive frame of mind when the mission demanded a fiercely aggressive frame of mind. In other words, the troops were now getting to the stage where Napoleon's dictum applied: "It's impossible to make an omelette without breaking eggs!"

The Regimental Commander, with the Commander's Group, Forward Echelon, galloped to Hill 1340 where the regimental command post was established. The battery also established its observation post here connected by field telephone with the battery. A line was also laid to the command post of the commanding officer, 1st Squadron, in order to facilitate co-operation by the battery in the dismounted attack.

Sixth Step

To experiment with the teamwork essential in a combined attack.

From the commanding height of Hill 1340 the various subdivisions could be seen going into action. The Machine-gun Troop found a favorable position from which to fire a few hundred yards northeast of Custer Hill. The 1st Squadron dismounted in the draw to which they had been ordered, and advanced east, taking advantage of the folds in the ground to maneuver forward, rather than make a direct attack, irrespective of the ground. The 2nd Squadron soon disappeared into the draw that had been assigned as their jump-off position, and reported by mounted messenger that they were ready. The Blue plane soon reported that the Red battery was out of action, and the battery, on call from the commanding officer, 1st Squadron, sent by field telephone, switched its fire to the enemy on Randolph Hill. After the dismounted attack was well under way, orders were sent by mounted messenger to the 2nd Squadron to launch their attack. Far to the northeast the 2nd Squadron soon appeared in successive lines of mounted troopers, well in rear of the enemy's right flank, attacking rapidly towards the east. The regimental reserve, in dispersed formations, awaited orders at the position designated.

As the group on Hill 1340 watched the development of the attack, this question was asked. Were

the different elements of the command too widely separated?

The consensus of opinion was that they were not. The open country with its various commanding knolls permitted such a view of the local battlefield by the regimental commander, and by the subdivision commanders, that even greater distances and intervals could have been used had the lie of the ground demanded, without loss of control or impairment of co-ordination. And smaller intervals actually would have hampered each subdivision commander by prematurely involving him in the offensive movements of the other. The Machine-gun Troop had to watch the development of the dismounted and mounted attack in order to displace forward at the proper time, and switch the direction of its fire so as to avoid firing into the squadrons.

Seventh Step

To experiment with the teamwork essential in a withdrawal.

For the next regimental training day it was assumed that the attack had met with initial success, but that conditions on other parts of the Blue line had resulted in orders for the Commanding Officer, 13th Cavalry, to withdraw to a defensive line in the vicinity of Harvey Hill, for a temporary stand while the main Blue forces retired to the south.

Accordingly for this exercise the troops took initial positions that it was assumed they might have had at the conclusion of the attack on Randolph Hill.

There was no change in the position of the regimental reserve, of the battery, or of the armored car troop.

The 2nd Squadron, with its attached platoon of armored cars was in the vicinity of Milk Ranch Gate, being gotten in hand after their mounted attack, which, it was assumed, had dispersed an enemy mounted reserve of one troop. They were suffering a scattering, and gradually increasing, rifle fire from the east.

The 1st Squadron (less Troop A [less MR platoon]) was on Randolph Hill from which they had just dislodged the enemy, and were readjusting their formation before further advance, with patrols 400 yards to the east in touch with the enemy, who were reported to be rallying in the draw about 650 yards east of Randolph Hill.

The Machine-gun Troop was about 600 yards northeast of Custer Hill, preparing to move forward to Randolph Hill.

While there was a certain incongruity in assuming that a retirement had been ordered so soon after the attack had been launched, the situation, with the troops separated as they were, afforded an excellent opportunity for the required combinations for mutual assistance, or teamwork, in a withdrawal from close contact with the enemy.

The general plan for the withdrawal can be seen from the provisions of the orders issued at 9:30 A. M. at the regimental command post on Hill 1340, which if combined into a formal field order, would have read

as follows. The more important instructions in the order, involving teamwork, are in italics.

Hq. 13th Cavalry,

Hill 1340 (400 yards E of Estes Gate)

9:30 A. M., 8 Dec., 1930.

Field Order

No. 2.

1. Our attack on the enemy right flank has succeeded in driving them from RANDOLPH HILL. On the remainder of the front our forces have not been so successful.

2. This regiment will retire, and take up a defensive position in the vicinity of HARVEY HILL, facing the northeast.

3. (a) The 1st Platoon Troop A, 9th Engineers, on receipt of this order, will withdraw to the vicinity of HARVEY HILL, and will mark out a defensive line from HARVEY HILL along ARNOLD DIVIDE to HILL 1300 (about 400 yards to the northwest) and thence to HILL 1300 (about 300 yards farther to the northwest and west of GOVERNOR HARVEY ROAD). After completion of this duty they will take post as Regimental reserve, under cover, in the north end of GOVERNOR HARVEY CANON.

(b) The 2nd Squadron, 13th Cavalry, releasing the platoon of armored cars which will revert to Troop A, 1st armored Car Squadron, will proceed on receipt of this order *under cover of the fire of that part of the 1st Squadron, 13th Cavalry, on RANDOLPH HILL*, to the north of HILL 1340 (east of ESTES GATE), and via open country west of the GOVERNOR HARVEY ROAD, to the defensive line indicated above; and will be distributed in depth, to hold dismounted that part of the line from HILL 1300 (west of GOVERNOR HARVEY ROAD) to HILL 1300 (on ARNOLD DIVIDE) exclusive.

(c) As soon as the 2nd Squadron has disengaged itself, the 1st Squadron, 13th Cavalry (less Troop A [less MR platoon]), *under cover of fire of Battery D, 18th Field Artillery will retire to the high ground half way between HILL 1340 (east of ESTES GATE) and CUSTER HILL, and will take position dismounted to assist in covering the withdrawal.* On specific orders from Regimental Commander it will withdraw via FOUR WAY DIVIDE to HARVEY HILL, and will organize, dismounted, in depth, to hold the line from HARVEY HILL to point where north and south road on ARNOLD DIVIDE crosses the crest line.

(d) *Troop A, 13th Cavalry (less MR platoon) now in regimental reserve, will take position dismounted on HILL 1340 (east of ESTES GATE) to assist in covering the withdrawal of the 2nd Squadron.* It will then withdraw, on specific orders from the Regimental Commander, via open country west of the GOVERNOR HARVEY ROAD, to the defensive line indicated, and organize for defense on HARVEY HILL. Upon arrival of the 1st Squadron, it will be reported to the Commanding Officer, 1st Squadron, for duty.

(e) *The Machine-Gun Troop, 13th Cavalry, from the vicinity of CUSTER HILL, will assist in covering*

the withdrawal, and on specific orders from the Regimental Commander, will withdraw to the defensive line indicated, and will take post for defense on HILL 1300, between the interior flanks of the 1st and 2nd Squadrons.

(f) *Battery D, 18th Field Artillery, will support the withdrawal of the 1st Squadron to the high ground between HILL 1340 and CUSTER HILL, and will then proceed by platoon directly to the defensive line indicated, and will take post in the draw about 400 yards southwest of HILL 1300 (on ARNOLD DIVIDE), and will assist with its fire the defense of the forward line, and the successive withdrawals of the units therefrom to the defensive line near HARVEY HILL.*

(g) *Troop A, 1st Armored Car Squadron will be joined by the platoon now with the 2nd Squadron, 13th Cavalry, and from flank positions to the west, will cover successively with its fire, the withdrawal of Troop A (less MR platoon) from HILL 1340; the 1st Squadron, 13th Cavalry, from the high ground southeast of HILL 1340; and the Machine-gun Troop from CUSTER HILL.* It will then reconnoiter to the north of the GOVERNOR HARVEY ROAD, and to the west thereof, and protect the left flank of the troops on their defensive line.

(x) Each squadron, on retiring, will leave patrols to maintain contact with the enemy in their front.

4. (a) Combat Train will immediately assemble in draw on ESTES ROAD, half way between ESTES GATE and FOUR WAY DIVIDE, and will proceed rapidly to take post under cover in north end of GOVERNOR HARVEY CANON.

(b) Regimental Aid station to southern exit of GOVERNOR HARVEY CANON.

5. (a) Commander's Group, Forward Echelon will follow 1st Platoon, Troop A, 9th Engineers to draw southwest of HILL 1300 (on ARNOLD DIVIDE) and establish Regimental Command Post.

(b) Temporary Command Post will be established on CUSTER HILL to which messages will be sent after 9:30 A. M. After withdrawal of Machine-gun Troop from CUSTER HILL, messages to Regimental Command Post southwest of HILL 1300.

WSG,

Colonel, 13th Cavalry,

Commanding.

The gist of this order was explained to the officers and noncommissioned officers in a conference on the day preceding the exercise, and copies of the order were issued. This enabled all concerned to reflect on the manner in which they would carry out their missions, particularly squadron commanders, who were able to prepare themselves on the tactics pertaining to their own movements in withdrawal, and the manner in which they might carry out their roles with respect to assisting other units.

On the day of the exercise, as soon as the troops had taken their initial positions, the order was dictated by the regimental commander on Hill 1340, to the acting Plans and Training Officer, to the Commanding Officer of the Engineers, the Commanding Officer

of Troop A, and to the Commanding Officer of Battery D. This was done, both as an experiment, and as a feature of the training which a regimental commander needs. As soon as the order had been dictated it was sent to the Armored Car Troop, to the 1st and 2nd Squadrons of the 13th Cavalry, and to the Machine-gun Troop, and the withdrawal started.

Much was learned in experimenting with this method of issuing orders. For this particular situation the method was entirely wrong. It took too long—about twenty-five minutes to dictate the entire order. Then it had to be sent to the distant units. To this should be added the time required by the unit commander to form his plan after receipt of his orders from higher authority.

What is the value of the best plan, and the best prepared order based on that plan, if it arrives too late in the hands of those who should execute it?

Based on a condition that is believed to exist, if delayed in getting to the troops the order may arrive in the midst of changed conditions, and become the worst possible plan and order.

What was the great factor under the circumstances? Time! The troops were getting ready to continue their attack; in a few more minutes they would be under way. If they were to retire, then was the time, before they had again become committed to a continuation of the attack; or before the enemy had engrossed them with a counterattack.

It was essential for the Regimental Commander to have formulated, in his own mind, a plan of withdrawal. It would have been splendid if he had been able to communicate it, entire, in a minute or two, to his various commanders, in order that the best possible teamwork might have resulted. But "there is a strength which dies if stretched too far or spun too

fine." The regimental commander was faced with a practical problem, not a theoretical one. Rough and ready methods instantly applied were better than intellectual refinements applied too late. His order should have been issued piecemeal to the organizations in the order in which action or movement on their part was desired by him,—issued direct if the Commanding Officer of the organization concerned was available, as in the case of the Commanding Officer of the Engineers, Troop A, and the Battery—by written message or other means if the commanding officer of the organization concerned was closely in touch with the enemy.

In any case, if a stenographer were available, these fragmentary orders should have been made of record in shorthand notes, to be transcribed into longhand by the stenographer at once, to serve as an *aide memoire* to the Regimental Commander so that he could keep track of what he told the various units to do and when. In the absence of a stenographer, several staff officers should have been assigned to jot down the orders issued direct to commanders. Retained copies of messages sent would complete the record—not a record for history but a working record for the commander himself.

Instructions for necessary teamwork, insofar as they involved the unit to which the order was issued, could have been incorporated in the various fragmentary orders.

But teamwork,—the aiding of units to the right and left when conditions demand it, or permit, and all the other varieties of mutual assistance which the term implies, must become so habitual through practice, that, except in important cases, it will be unnecessary to specifically prescribe in orders just how that teamwork is to be applied.



Antiaircraft Terminology

First Lieutenant Joseph I. Greene, 24th Infantry¹

A STUDY of the 1929 regimental reports on TR 300-5 (Antiaircraft Combat, Basic, for All Arms Except Antiaircraft Artillery), and a careful reading of articles that have appeared in the Service Journals dealing with various aspects of antiaircraft, bring the conclusion that we need a clearer definition of terms. It is not astonishing that we are confused. The antiaircraft problem is a big one and a young one. Its technical ramifications are wide and its tactical and strategical aspects cannot be settled in a day. Besides, the whole problem is so important that if we fail to meet it with successful measures we shall see the whole of war become vastly changed. It is not a minimization to state that we are just beginning to find the solution, although by this time we have a good idea of the size of the job. We can make better progress, however, if we halt for a brief period to reorganize.

By all means let us make our second start with a clear view of the ground to be covered and the objectives to be gained. To accomplish this we must speak a common language. We must call things in antiaircraft by names whose use will reduce confusion of thought and action to a minimum. It is the purpose of this article to suggest a revision of antiaircraft terms and to suggest a terminology that will be an improvement on the inadequate and confusing one now in use.

The greatest confusion and lack of clarity exist in the terminology of airplane flight. At present we hear and use such terms as "Parallel Flight," "Vertical Flight," "Diving Flight," and the like. To some of us they mean one thing and to some another. An attempt was made about two years ago by Major Leonard R. Boyd and the author to define these existing terms. The definitions evolved were included in TR 300-5 (paragraph 47). Their purpose was to establish clarity in antiaircraft thinking and writing. Time has shown, however, that they are incomplete and inadequate. The continued development and research in antiaircraft need a more definitive set of terms.

General Classification of Flight

To arrive at a logical and usable flight terminology we must begin by analyzing the movements possible to airplanes. All of these movements can be placed under two general classifications: curved flight and straight flight. Under the first heading we may put all abrupt turns of which the airplane is capable—banks, loops, spirals, and the like. These are not of great importance in antiaircraft fire for two reasons: attack planes engaged in curved flight are almost impossible for riflemen to hit, and attack planes following a curved flight path can do little or no damage to ground troops.

Straight flight is the classification with which antiaircraft chiefly deals. It includes all flight that follows or nearly follows a straight line. For our purposes it is best to include in this classification flight on a widely curved path because such flight appears approximately straight to the infantryman.

Types of Straight Flight

It is over the terms now applied to the kinds of straight flight that confusion reigns. We can best make order out of this confusion by determining all the types of straight flight and then giving them clear and understandable names. But we must decide first upon a reference point. We must refer the path of the airplane to something on the ground.

We have the choice of referring the flight path to an area, such as a strong point or a bivouac area; to a line corresponding to a deployed unit, such as a section or platoon; or to a point corresponding to the individual soldier. As we shall see later when we discuss the terms of flight now used, it is the attempt to define flight by reference to lines or areas that has caused most of the existing confusion. Antiaircraft firing, whether rifle or machine gun, is basically individual. A given target at a given moment appears differently to each rifleman or gunner. For example, when a plane is directly over one man's head it is not over the head of a man 50 feet away. Each individual is naturally his own reference point. Moreover, as antiaircraft firing develops it becomes more and more evident that the control of a group during an aerial attack will be difficult if not impossible, because of such factors as noise and confusion of battle. Therefore, terms and definitions of flight, if they are to be clear and practical, must be arrived at from the individual soldier's viewpoint.

There are two other things we must remember. A soldier who is firing at an airplane must always face toward it. Hence, in analyzing flight we must never think of a plane as being "behind the firer". We should also think of flight as approaching rather than receding. The purpose of antiaircraft fire is to prevent enemy planes from attacking by bringing them down, and failing this, to make their attack as costly as possible. Therefore, we must place a maximum of fire upon them as soon as we can. Hence, the *approaching plane is the important one*.

New Terms Suggested

Now, if we refer the flight path of the approaching plane to the individual and bear in mind that the firer continues to face toward or aim at the plane, we find that all straight flight falls into two divisions. Let us name and define these two general types as follows:

¹ Formerly Test Officer, Department of Experiment, The Infantry School.

Overhead Flight: Straight flight the extended course of which passes over the head of the firer.

Non-overhead Flight: Straight flight the extended course of which does not pass over the head of the firer.

These classifications are clear, but we shall need to be more explicit if we are to give adequate names to

Non-overhead Horizontal Flight: Straight flight, parallel or approximately parallel to the ground, the extension of which does not pass over the head of the firer. (Plate 2-B).

Non-overhead Climbing Flight: Straight flight, increasing in altitude, the extension of which does not pass over the head of the firer. (Plate 2-C).

To these six terms it will be well to add one more to cover a special case:

Direct Diving Flight: Straight flight, decreasing in altitude, and moving approximately directly toward the firer. (Figure 3).

Further Limitation of Meaning

These seven terms can be augmented further, but as they stand they should be sufficient for purposes of training and technical discussion. They are simple and self-explanatory, hardly needing to be defined. There is little chance for confusion in their use. They are an improvement on the ambiguous terminology now employed. Where their use is still not explicit enough, the use of the words "low" and "high", or the actual statement of the altitude in feet or yards, will add the required accuracy when both types of horizontal flight are referred to. The use of the words "close" or "distant", or the actual statement of the minimum slant range, will give a like accuracy to references to all types of non-overhead flight. When

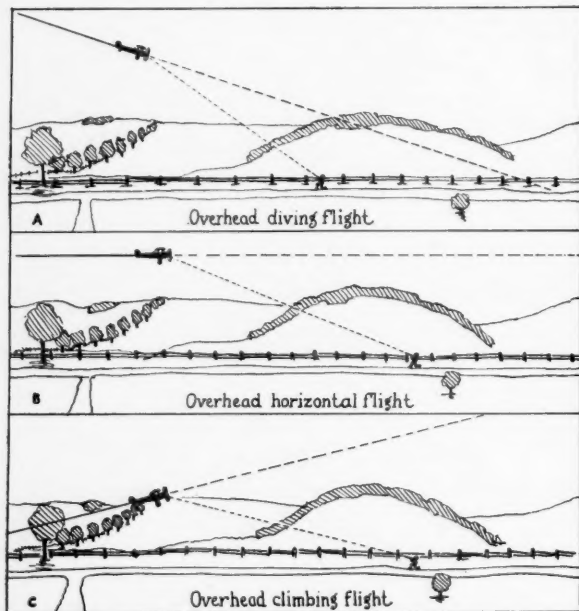


Plate 1. The Types of Overhead Flight

all the types of straight flight. The simplest way to accomplish this is to classify straight flight further into downward flight, level flight, and upward flight. We may express these better, perhaps, by using the commoner terms; diving, horizontal, and climbing flight. Definitions for these are:

Diving Flight: Straight flight that decreases in altitude.

Horizontal Flight: Straight flight parallel or approximately parallel to the ground.

Climbing Flight: Straight flight that increases in altitude.

Then, from these two methods of classification we can combine terms to form a simple terminology that includes every kind of straight flight. These, defined, are:

Overhead Diving Flight: Straight flight, decreasing in altitude, the extension of which passes over the head of the firer. (Plate 1-A).

Overhead Horizontal Flight: Straight flight, parallel or approximately parallel to the ground, the extension of which passes over the head of the firer. (Plate 1-B).

Overhead Climbing Flight: Straight flight, increasing in altitude, the extension of which passes over the head of the firer. (Plate 1-C).

Non-overhead Diving Flight: Straight flight, decreasing in altitude, the extension of which does not pass over the head of the firer. (Plate 2-A).

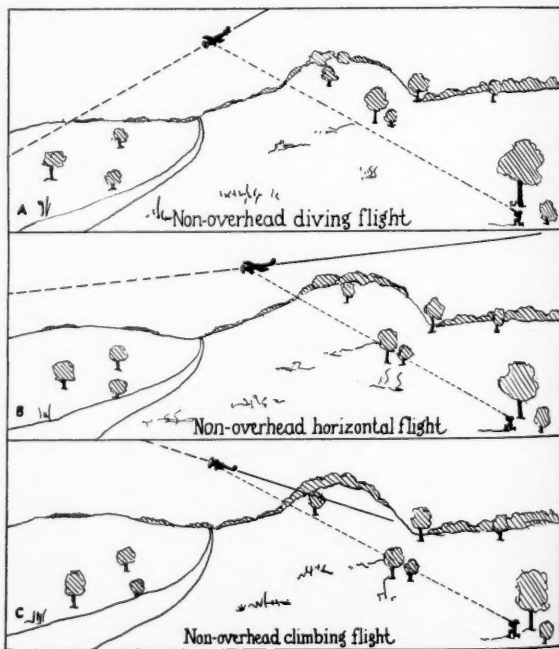


Plate 2. Types of Non-Overhead Flight

necessary also we can use "receding" or "approaching" to limit further the meaning we desire.

We shall need, however, another kind of terminology when we discuss the tactical aspects of attack aviation in its relation to infantry. The terms "Attack Flight" and "Non-Attack Flight" would need no definition.

If the use of gas-laying planes becomes general we can add the term "Gas Attack Flight".

Reasons for Confusion in Terms Now Used

Now that we have outlined a proposed new terminology for flight, let us examine the terms most commonly employed at present. These are "Parallel Flight", "Perpendicular" or "Vertical Flight", "Oblique Flight," and "Diving Flight."

Any attempt to define "Parallel Flight" encounters the question "parallel to what?" This term is usually applied to "Non-overhead Horizontal Flight". It is not, however, clear and self-explanatory. The word "parallel" may refer to the ground or to the line of riflemen drawn up for towed-target practice. As a matter of fact, the term did refer originally to the firing line. But suppose a plane passed directly over the firing line from one side to the other, flying over the head of every man on it. What kind of flight would that be? The flight would still be parallel to the firing line and to the ground also. It was a very natural thing to refer the path of flight to the firing line, but it was a mistake. In combat there will be no firing line. There will be only a hastily deployed and irregular formation. Hence, as suggested earlier in this article, we must define flight with primary reference to the individual soldier. The individual is not a line, but to all intents a point. Neither a line of airplane flight nor any other line can be parallel to a point. Therefore, "Parallel Flight" is a misleading misnomer.

The term "Perpendicular" or "Vertical Flight" comes under the same category. It, too, got its name by reference to the firing line in early antiaircraft development work. It refers to Overhead Horizontal Flight. Actually such flight is not perpendicular to the firing line, and it never intersects that line. Neither is this flight perpendicular or vertical to the ground, which indeed is its correct meaning. The ris-

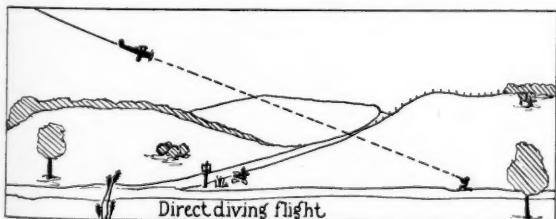


Plate 3

ing or descending helicopter or autogiro may engage in perpendicular or vertical flight, but not the airplane.

"Oblique Flight" has been used with reference to "Non-Overhead Climbing" and "Non-Overhead Diving Flight", although its original meaning denoted any flight that passed over the firing line at an acute angle. In the first application it is not an incorrect term, and in the second it also loses all meaning when we think of it with reference to the individual in combat. As it seems well to preserve the distinction between "Diving" and "Climbing Flight", and as the new termin-

ology evolved above is complete enough, we can do without this term.

Thus "Diving Flight" remains the only term now in common usage that it seems advisable to retain. In paragraph 47, TR 300-5, this is defined as "any approximately straight flight toward the firer from a higher elevation." This definition limits the term "diving" too much. A plane may dive at any point on the ground and yet be within a sight of an individual firer. Hence, the definition given above, straight flight that decreases in altitude, is truer and more inclusive. Then, by forming the terms "Overhead Diving Flight" and "Non-Overhead Div-

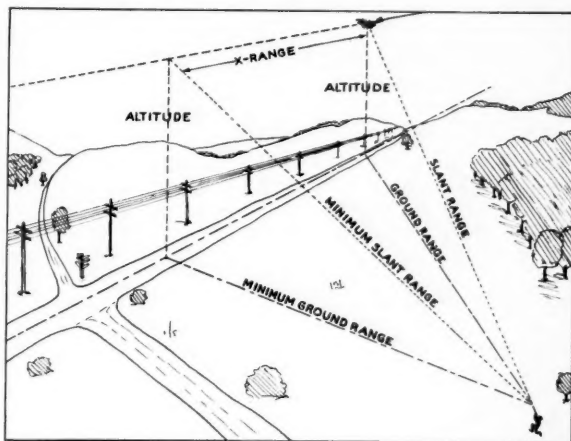


Plate 4

ing Flight", we separate "Diving Flight" into the only two classifications in which infantry antiaircraft needs to be interested.

Although not in general use, the term "Passing Flight" has been suggested as a term for "Non-Overhead Flight". However, an airplane in "Overhead Flight" passes over the firer; consequently the use of "Passing Flight" might lead to confusion.

Other Terms that Need Revision

There are other antiaircraft terms besides those that refer to flight that need revision. The term "Horizontal Range", is defined in paragraph 47 h, TR 300-5 as "the distance along the ground, i. e., the level plane of the firer, to a point directly under the vulnerable center of the target at the moment of impact." This is sometimes called the "Ground Range"; and "Ground Range" is a much more explicit term than "Horizontal Range". (Plate 4).

Also defined in the same paragraph of TR 300-5 is "Parallel Range". This term has, in general, only a technical use, denoting as it does the distance, in "Non-Overhead Horizontal Flight", from the target at the moment of impact to the point at which the extended path of the target is nearest to the firer. The term was evolved to complement the terms "Minimum Ground Range" and "Altitude". The three terms form the X, Y, and Z components of "Slant Range". "Parallel Range", of course, received its name from

"Parallel Flight". As we have suggested a new and better term for this type of flight—"Non-overhead Horizontal", to be consistent in clearing up confusion we must rename "Parallel Range". We can name this technical element the "X-range" as it corresponds to the X element of the "Slant Range" and as no other self-explanatory name, which would not be confusing, offers itself. (Plate 4).

In some writings and reports on antiaircraft, including TR 300-5, the word "elevation" has been used to express the height at which an airplane flies. This use of the word is not strictly incorrect although it is usually applied to the height of objects that rest on

the ground, *e. g.*, "The elevation of Mount Everest is 29,009 feet" and "The Empire State Building will have a greater elevation than the Eiffel Tower." Furthermore, machine gunners and artillerymen already have a well established use for the word, employing it in a different sense. "Altitude", therefore, is a better word, and is a term that is already in use in the Air Corps. (Plate 4).

There is no doubt room for improvement in the list of terms here suggested. And as new elements enter into antiaircraft development, new terms and definitions will be required. Certainly the vague terminology with which we now struggle needs bettering.

The Aids

"THE disability from which I suffer is a great handicap, but there is a bright side to everything, and my inability to apply the aids strongly has been a great lesson to me. I can use but very little force, and the results obtained by my weak efforts have convinced me that horses are generally over-ridden; that much more strength than necessary is habitually used in applying the aids.

"The rider must reduce his actions to the very minimum and leave the horse the greatest possible freedom in his.

"To be understood readily and quickly by the horse, the language of the aids must be the simplest, but in scientific theories it is rarely so, and the lessons are as difficult to give as to take. Training thus becomes as boring to the rider as to the horse. It is even said that in demanding a very simple movement, we must, for example, raise the right hand and carry that rein to the right; lower the left hand and close it on this rein; carry one leg forward, the other back; displace the seat to this or that side and incline the body to the front. Few of us can say to the horse so many things at one time without making a mistake and thus being misunderstood. I, for one, will not undertake such a task. I fear I might end raving.

"It is also said that the aids must be applied at the precise moment when this or that foot is raised or planted, etc., etc. In my humble opinion this is too exact and exacting. A horse must not be robbed of his initiative. When I wish my horse to take the gallop, my aids acting on the horse's position imperceptibly put him into the gallop, smoothly—without jerks and without any feeling or sensation other than that experienced when seated in a Pullman which is smoothly started. It is only by the whirl of the wheels that you realize you are moving."

Extract from "Extérieur et Haute Ecole" by Captain E. Beudant, translated by Lieutenant Colonel John Barry, Cavalry. To be published summer, 1931, by Charles Scribner's Sons.

Sport With the Saber

Captain G. B. Guenther, Cavalry

THE advent of firearms has gradually eclipsed the importance of the lance and the saber in modern warfare. The World War with its trench warfare in which the employment of modern Cavalry was difficult has convinced the military that the lance has no further use as a weapon in modern engagements, and just recently Germany has followed suit with France and England and has discarded the lance. This decision on the part of these countries marks the passing of the lance as a hand weapon in modern warfare. The saber only remains, either in the form of our pointing weapon or that of the British and French, or the cutting weapon of the Cossacks and the Arabs.

When will the saber arrive at the same point as the lance and be called obsolete? Many of our cavalrymen are today advocating that the saber be discarded and be replaced by a bolo, corn knife, or machete.

Whatever may be the duration of the life of the saber, the fact remains that it is still a part of the equipment of the Cavalry of our modern armies. It is carried to drill and on practice marches and is merely tolerated as a necessary evil but is not popular as a part of full pack equipment or as a hand weapon. The saber to be used with skill requires that the mounted soldier be a horseman; that he be agile and aggressive, imbued with the desire to close with the adversary and give combat.

The exercises which follow are intended not only to increase the interest in the saber and by wholesome competition properly rewarded, to improve the horsemanship of the cavalryman but also to make him more proficient in the use of the saber without always holding strictly to the routine of the monotonous runs on the saber course.

Exercise 1. Equipment: A level piece of ground twenty-five yards by fifty yards sodded or heavily sanded. Four saber dummies (without heads) with arms attached to hold ring in a vertical position but easily detachable. Four rings for each contestant. Rings to be the size of those used in a cavalry halter or those used in the old hair cinch of the McClellan saddle (rings to suit the degree of ability of the contestant). The old wooden saber or the issue saber can be used.

Course and requirements: The dummies with arms attached and rings adjusted in the arm have been placed either in line at intervals of fifteen yards or staggered, the first on the right and the second on the left. The contestant, mounted, starts with saber drawn and at the guard and crosses the starting line at a gallop. As he approaches the first ring he thrusts the point of the saber toward and through the center of the ring, attempting to retain the ring on the saber. If the ring is properly adjusted, it will drop

from the fastening as soon as contact is made with the saber. The point of the blade must now be elevated to prevent the ring from sliding off of the saber (if the point has properly entered it). The same for each ring. When the contestant has arrived at the finish with the four rings on his saber in the prescribed time and has remained at the gallop he has fulfilled the requirements. In competitions the distance between the dummies and the time limit are so adjusted as to be proportionate to the skill of the contestants.

Exercise 2. Equipment: A similar piece of ground as in Exercise 1, the surface of which will hold an ordinary tent peg with ease. Five pegs the thickness and size of the issue peg used on the kneeling silhouette for the pistol target except that they are only ten inches long. One saber for each contestant.

Course and requirements: The pegs are driven into the ground at intervals of five or ten yards, either on the right or left of the track on which the contestant rides. The pegs are driven deep enough so that actual penetrating contact by the point of the saber is needed to knock them to ground.

The contestant, mounted, starts at the gallop and is required to knock the pegs to the ground by a penetration of the point into the pegs and to arrive at the finish in the required time, having retained the gallop throughout the entire distance. Time and method of arranging the pegs can also be adjusted to suit the skill of the contestants.

Exercise 3. Equipment: A piece of ground as in Exercises 1 and 2. Four pointed sticks two by two inches by five feet. Four toy balloons at least six inches in diameter. Contestants to have issue sabers.

Course and requirement: The sticks are driven into the ground and on a straight line at intervals of ten yards. The balloons are attached so that they are not more than an inch from the top of the sticks.

The contestant crosses the starting line at a gallop with drawn saber piercing the balloon as he approaches. He is required to pierce each balloon and arrive at the finish within the prescribed time. In order to make the exercise more difficult the height of the balloons can be varied and they may be placed at varied intervals.

Benefits to be derived from these exercises: Properly conducted, these exercises will provide a type of mounted sport for the cavalryman.

Mounts can be trained to accept the saber, go straight, or change direction at the will of rider and carry him in any position he may take.

The cavalryman very readily improves in his ability to ride his horse; he becomes more proficient with the saber; and last but not least becomes a bold and aggressive rider because he soon feels more at home on his mount.

Industry and National Defense

IV¹

Major General George Van Horn Moseley, U. S. A.

WAR has ever been accompanied by rising prices and depreciating currency. The trouble begins in those items for which there is unusual demand, such as copper, iron, steel, wool and cotton. Increased cost in these items occasions an increase in the prices of articles made from them, and the cost of living begins to mount. Wage earners face hardships and rightly demand increased compensation. This in turn increases costs of all production from basic raw materials to finished products, and the whole process begins anew. Rising prices require the government to procure more money on credit than would otherwise be necessary, and when its credit begins to be strained, the effect on the whole is most startling. In the World War, Russia had extreme experience along this line. Our own experience was not so unfortunate, but it was sufficiently disturbing to cause us to reflect on what might have happened if we had begun to approach exhaustion without having adopted positive stabilizing measures. It also points to the necessity of developing some method to prevent the beginning of the vicious circle of rising prices and money inflation.

No one has as yet discovered a complete or perfect method of controlling prices in war. Contradictory theories affecting it have been advanced. Often it is said that an attempt by the government to control prices would be an attempt to "repeal the law of supply and demand," and at this bald statement we are supposed to blanch with terror and hastily thrust such thoughts from our minds.

It is true that when prices are fixed they are placed at different levels from those that would result from free bargaining during the stress of war. But it is also true that in fixing prices consideration must be given to the necessity of equalizing supply and demand. In other words, we know that we must not fix prices at a level that would stifle production, and at the same time must find some method for stimulating supply without the necessity of offering absurdly high prices. Reduction in consumption should be accomplished by some means other than charging such prices. Appeals to the patriotism of citizens had a marked influence in this regard in the past war, particularly in curtailing consumption. Who does not remember the wheatless, meatless and gasless days, as well as the zeal we displayed in saving worn out electric light bulbs to turn in to the authorities? In response to government requests we planted "war gardens" and abandoned the practice of hoarding supplies. Measures along this line tend to enhance supply and dimin-

ish demand, but they are not in themselves sufficient to effect stabilization of prices in war.

Fundamentally the purpose of price control is to effect the equitable distribution of the war burden without interfering with production. This equalization should apply among ourselves, and also between the present and the future. We wish to prevent excessive profits in one quarter, and a lowering of a living standard in another; we do not want to incur great debts on an inflated money basis, and pay for them later in a period of deflation.

It is frequently said that to accomplish these purposes in war the United States should "draft everything and everybody into the government service." People who make such a sweeping statement probably do not employ the word "draft" as we usually understand it. The government must put everything and everybody to work in the common cause; but it would be difficult to conceive an organization such as would result from a complete "drafting" of the American nation. It seems unnecessary to enumerate the manifold administrative and technical difficulties that would inevitably arise in attempting to form such an organization. Questions as to the constitutionality of the plan are left to the lawyers; what we are concerned in is its practicability. It seems to me that here is proposed a scheme that at best would require more time for its accomplishment than could possibly be permitted if we were faced with a major emergency. Moreover, 120,000,000 people would be trying to adjust themselves to a complete change in our economic processes at the very time that their full attention should be given to the tasks laid out for them in repelling the enemy from our gates. These are my personal views. I appreciate the justice in the idea that lies behind the proposal, but I for one should not like to see the safety of the country made dependent upon an organizational scheme which could not be put in operation promptly, if at all. At least, such a solution cannot be considered as a practicable one until some person comes forward with a detailed and workable program for its consummation.

On the other hand, I do not for a moment agree with those who say that we should keep hands off and let prices go where they will, and take back into the treasury all excess profits by means of graduated income taxes. While excess profits taxes would have their place under any scheme, to accept such a method as a complete solution is akin to a deliberate courting of disease in the belief that the doctor's pills will surely cure us.

One thing is certain; we cannot supinely say there is no solution. When we enter a war the mass of our

¹ The last article of a series of four.

citizens are willing and anxious to make unusual efforts and sacrifices for the good of the country. The weight of public opinion thus engendered is the most powerful and compelling force in our list of assets. All we need is the intelligent and practical direction of this force to accomplish any desired result. With the aid of this force any practicable plan will work; without it, none will solve the difficulty. Based on this line of reasoning, certain eminent men have evolved a plan for price control which they believe will be effective.

The essence of this plan is: Upon the outbreak of war, and subsequent to any necessary authorization from Congress, the President would issue, under the authority of a specific law, a proclamation fixing or "freezing" prices at the levels existing on some prior date, chosen to represent as nearly as possible the prices of "normal" times. This scale of prices would apply to all things and all services. Coincidentally with the promulgation of this proclamation there would be established a price-control committee composed of able administrators representing every kind of human endeavor. This committee would consider the "fixed" price list as a basis on which to make adjustments from time to time to meet the needs of the country and to insure justice to all classes. In addition to specific law and public opinion, another means of making effective the decisions of this committee would be through governmental control over raw materials and other essential elements of production. No manufacturer, railway executive, or mine operator could long ignore a reasonable price regulation if he were confronted with the certainty that non-conformance would result in the withholding from his concern of steel, fuel, power, transportation, or other essential items.

In time of peace, countless arguments can of course be propounded against introducing such a system in war. There are unquestionably many difficulties to be overcome, and probably no one can foresee the eventual results. Proponents of the plan urge that in the United States it was being gradually evolved during the war, and that sufficient experience was gained to prove its practicability. We should not forget, though, that in 1917 price reductions were effected by agreement rather than by governmental fiat.

In England price fixing was apparently much more extensively practiced. Commentators state that, though their system was not perfect, it was in general effective.

No one can deny the great importance of preventing rapid price fluctuation in war. Careful prearrangement for procuring governmental supplies, and aggressive and intelligent leadership, backed up by supporting public opinion, can accomplish much. Whether or not we should attempt the application of a rigid and all-inclusive system at the beginning of a great emergency is a question that requires more discussion and thought before it can be definitely answered.

Transportation, like finance, is a vital factor in plans for national industrial mobilization. The transporta-

tion facilities of this country are varied in nature and are becoming more so. However, the railway systems remain the backbone of internal transportation, and the studies are grouped around their capabilities and limitations.

During the war we took over the railways, but the experience was not entirely a fortunate one, and a better plan for satisfying governmental needs should be devised. We need control rather than possession. Over and over it should be emphasized that the government should take advantage of the experience, training, and ability gained in time of peace by commercial organizations and by individuals. The government's directives to all should be: "Meet our requirements efficiently and fairly, and full justice will be done to you." Railway executives are experienced in meeting transportation emergencies. To relieve them of the responsibility for meeting the transportation emergency incident to war would be to rob ourselves of an important national asset. Recognizing their responsibility in this matter, the railways, through the American Railway Association, have developed, in cooperation with the War Department, a comprehensive plan that would unquestionably work efficiently.

The government would necessarily perform functions in war with respect to industry other than those mentioned. Enough has been said, however, to illustrate the underlying principles of the plans now being developed. To indicate what should be done is manifestly insufficient; the plans must provide for the necessary administrative organization. Here again we must fall back upon experience to point out the path to practicability. No doubt such an organization could assume any of several forms and still meet the requirements of the situation. I believe the following would be satisfactory.

A vital part of the organization, *but not a part of the government*, would be a group of committees, known in the late war as "War Service Committees." Each was in effect an executive committee for the particular branch of industry it represented, and was maintained in Washington by that industry. It served as the connecting link between its particular association and the government. Recent years have witnessed a growth in the business world of the tendency of related activities to group themselves into associations, so that, in general, these executive committees exist in time of peace. In the late war there were about 175 service committees; in any future emergency, there would probably not be fewer.

The governmental part of the industrial organization would of course be purely a war-time emergency unit. It would be an organization authorized by Congress. Through it would be exercised those parts of the war powers of our President dealing with industrial matters. This organization, heading up into one man directly responsible to the President, would be made up of the ablest representatives available from all branches of industry. In the name of the President it would direct and control the industrial forces of the whole country in accordance with the necessities of the particular situation.

In the process of developing the organization outlined above, the cooperation of many agencies is essential. For instance, we need the cooperation of the National Chamber of Commerce and the various trade associations. Data, studies, initial operating plans, and nuclei of personnel should be ready for grouping under the men the President would select to fill the key positions in the organization. The Department of Commerce could provide information and experts on domestic and foreign trade; the Department of Agriculture on food, cotton, wool, and other products; the Treasury Department on financial matters; the Interstate Commerce Commission on transportation; the Army and Navy on requirements of those forces; and so on. All appropriate parts of the government should be familiar with the essentials of the plan. When mutual understanding and agreements had been established among all these, progress on this part of the program, could keep abreast of that applying strictly to the procurement plan of the military service.

Moreover, in time of peace these questions should be discussed openly and fearlessly in the forum of the whole people. The measures adopted to meet them would have a direct and profound effect upon the lives and welfare of us all in the event of an emergency. Every citizen has a right to know what may happen

to him under these circumstances, and an equal right to be heard by those who would have the responsibility for making the ultimate decisions.

While the whole process described in this article is called preparation for industrial mobilization, it is not preparation for war in the generally understood sense of that term. It seeks only to make the best use of all resources in the event we are suddenly plunged into conflict, to insure equal distribution of the sacrifices and hardships entailed by war.

Under a well prepared and widely understood scheme of this description, American industry would not be violently disturbed in the event of a national emergency. Since there would be no competition among governmental agencies, one great cause for the skyrocketing of prices would not exist, and a proper balance between cost of living and income would be easier to maintain. The government would be in position to make the best use of all resources. Public opinion would encourage maximum effort by all. Profiteering, if it still existed, would be reduced to the minimum, and, the guilty discovered and punished. War debts, to be paid by ourselves and by our children, would be no larger than necessary and would not include enormous sums to pay for our own folly, waste, ignorance, and inefficiency.

The Trainer

ASPOILED horse, made stubborn by harsh treatment, sometimes has a bad disposition—an unbroken horse, never. I am convinced that the first requisite of a successful trainer is a *complete realization that he is not infallible*. To think that he must be the Devil himself is vanity, opposed alike to good training, to the soundness of the horse, and to the instruction of the rider. It is much easier to use force than brains. When after careful observation one is almost certain that his actions have been logical, his demands intelligent and intelligible, and that he has not violated involuntarily the simple laws of mechanics by weighting a member that should have been lightened, or committed any similar error, then, when the horse continues to disobey, instead of punishing, it is much better to regain the horse's confidence, calm him, and try again to make him obey. A horse, I insist, habitually responds logically to demands made upon him. Instead then of trying to force him to respond to our possibly and indeed, probably illogical or unintelligible demands, we had better *carefully study ourselves*. The correctness of the response is almost *always in proportion* to the accuracy of the demand. If the horse does not obey, the rider has only himself to blame; he may not have given the horse the correct position or sufficient impulsion to comply with his demands, or he may have been guilty of any one or many of the countless sins of omission and commission.

Extract from "Extérieur et Haute Ecole" by Captain E. Beudant, translated by Lieutenant Colonel John Barry, Cavalry. To be published summer, 1931 by Charles Scribner's Sons.

Cavalry in European Armies

Colonel Mauriz Wiktorin, Austrian Army

BEFORE the World War the Cavalry in all European countries was more or less incorrectly organized, equipped and trained. In general, only mounted combat was considered, combat with firearms was neglected, the Cavalry had far too few machine guns, airplanes, armored cars and artillery. And, moreover, the World War was chiefly position warfare, and the Cavalry naturally did not have much opportunity to operate.

Now the emphasis is being placed in general more on open warfare, and in that type of warfare a modern Cavalry will again play an important part. For, in spite of all technical advances, the motor cannot in all situations replace the horse; the two will rather have to cooperate, although in this cooperation the importance of the motor as compared with the horse has become greater.

For that reason, all European armies have retained the Cavalry. For its strength in comparison with the other arms different factors are decisive, the most important of which is whether the country concerned will conduct a future war on the offensive or defensive, hence as open warfare or position warfare.

Then also the topography of the country in which a war may be carried on, mountains or maneuvering terrain, is of importance. Lastly whether the country itself has a sufficient number of horses or whether they have to be imported, whether there is enough fodder in the country, whether the soldiers are well suited for cavalry service, and then also the soldierly qualities and leadership of the prospective enemy are matters of importance.

Now in the following we shall give a brief discussion of the Cavalry in the armies of the different countries, taken in order of their importance.

France

As we know, a great reorganization in the army was decided upon in the year 1929. It provides for a so-called "covering army," which is to consist of the youngest, best trained and best equipped troops and must always be ready for operation in a few days. This covering army will consist of 25 infantry divisions, 5 cavalry divisions and 3 air divisions. Therefore in this army the Cavalry is quite strong, a proof of the importance once again attributed to it even in France, a country in which the sentiment has been strong for motorization.

According to the army reorganization, 25 white, 5 Chasseurs d'Afrique, 13 Spahi regiments and one cavalry regiment of the Foreign Legion will be organized. Of the 55 white regiments formerly existing, many have already been broken up. They were used to organize 5 motorized dragoon battalions and 18 auto-machine gun detachments.

The French cavalry regiment consists of 2 half regiments of 2 squadrons of cavalry each, each squadron having 8 light machine guns, one machine gun squadron of 8 heavy machine guns and one headquarters squadron in which the headquarters detachment, telegraphists, engineers, etc., are combined.

The cavalry division consists of 3 brigades of 2 cavalry regiments each, 2 battalions of horse artillery of 3 batteries each, then 3 to 6 motorized batteries, 1 auto-dragoon battalion, one battalion of bicyclists of 2 to 3 companies, then 3 auto-machine gun detachments, one detachment of armored cars of 3 squadrons of 12 cars each, and one flight of airplanes.

England

In England the Cavalry has been considerably reduced in recent times. Two regiments, the 11th Hussars and 12th Lancers, were reorganized into armored car regiments of 3 squadrons consisting of 11 armored cars each. In all other regiments the number of squadrons was decreased from 3 to 2. The cavalry regiment now consists of one headquarters squadron, which also has 2 anti-aircraft machine guns, 2 squadrons of troopers and one motorized machine gun squadron of 8 guns. The whole train is also motorized.

There is no doubt but that this organization of a cavalry regiment is not appropriate. As a matter of fact this has also proven true in England, and a reorganization of the Cavalry has recently been considered, in which the chief change is the loading of the machine guns on horseback. And for the train some horsedrawn vehicles are also being introduced.

At the present time in the regular army there still are 20 regiments, 12 of which are in England, 8 in India and the other colonies; in the territorial army the skeleton for the organization of 16 regiments is available.

Of larger cavalry units there are 2 brigades each of 3 to 4 cavalry regiments, one horse artillery battalion of 3 batteries, a few motorized batteries, one armored car regiment with 33 armored cars, and sometimes also detailed Infantry in trucks and on bicycle.

Italy

Since the Italian Army during the World War had almost no opportunity of using its Cavalry, it has no experience of its own in this line. Moreover the frontier areas within which a new war would be fought are almost entirely mountainous. Therefore, shortly after the end of the war the Cavalry was very greatly reduced in size, and the new army reorganization of the year 1926-27 brought no change in it.

Therefore there are now only 12 regiments, the regiment consisting of one headquarters squadron, 4 cavalry squadrons with 4 light machine guns each and the skeleton of one heavy machine gun squadron for

8 machine guns. Some of the regiments have retained the lance.

In case of war the Cavalry is organized into the so-called "Mobile Corps" (*Corpo Celere*). For this purpose there are already in time of peace three larger cavalry units. A mobile corps consists of from 3 to 4 cavalry regiments, one battalion of horse artillery, 1 squadron armored cars, and several motorized batteries, and—due to the fact that there are many good roads in the upper Italian plain—2 Bersaglieri Bicycle Regiments of 2 battalions each.

In any case the whole organization and strength of the Italian Cavalry is not sufficient and suitable for its purpose, even if the great number of mountains is considered.

Russia

Russia has from time immemorial been the El Dorado of the Cavalry and has remained such since the time of the World War. Her great plains, her few good roads and highways create very excellent conditions for a good and strong force of Cavalry. In addition to this it may be stated that the country has an immense wealth of horses, the men grow up accustomed to horses and therefore make excellent cavalrymen. Therefore Russia is even considering the organization of very strong cavalry forces into whole cavalry armies. In the well-known cavalry officer Budjenny, who was so successful in the war against Poland in 1920, she has a very excellent and energetic general for training her masses of Cavalry.

The army has about 100 cavalry regiments, which, it is true, are not all equally well organized and trained, for there are among them certain partially regular Cossack formations. The normal regiment has 4 squadrons of troopers with 4 light machine guns each and one very large machine gun squadron with 16 heavy machine guns.

The cavalry division has 6 regiments, 4 horse artillery batteries, 1 cyclist detachment, 1 armored car squadron. There are 15 cavalry divisions, and 7 independent cavalry brigades and 3 cavalry corps headquarters.

Poland

Here also both the geographic conditions and those pertaining to the highways and railroads are very favorable for the use of large forces of Cavalry. The Polish Army is, as we know, mostly made up of regiments from the former Austrian, Russian and German armies; among them there was also a great number of cavalry regiments, most of which were very good and which even now form the best part of the new Polish Army.

In all there are 40 regiments available, the regiment having 5 cavalry squadrons, one machine gun squadron with 8 heavy machine guns, 1 engineer section and 1 telegraph squad. The squadrons are very well equipped with machine guns, each having 8 light and 2 heavy ones. The Polish cavalry regiment therefore has the strongest combat forces of all European cavalry regiments. However, whether the regiment has not been made too unwieldy by the many especially heavy machine guns is doubtful. Moreover, each regi-

ment is also to get one armored car section, although so far there have only been very few of them available.

Of larger units there are 4 cavalry divisions and 6 independent brigades. One of these 6 brigades is fitted out to form one of the so-called mixed divisions, more cyclists, Infantry in motor trucks, motorized artillery and armored cars being assigned to it. The other brigades have 3 regiments each, 1 horse artillery battalion, 1 cyclist company and 1 armored car squadron.

The 4 cavalry divisions consist of 3 brigades of 6 cavalry regiments each, one horse artillery regiment consisting of 6 batteries, 1 bicyclist company and 1 armored car squadron of 8 cars. In addition to this, machine gun battalions are organized, of which every cavalry division is to get one.

Czechoslovakia

In this country the Cavalry again is comparatively weak; the Czechoslovak Army was organized chiefly upon the basis of the French, which at that time assigned no particular role to the Cavalry in a modern army. It must also be added that there is not a sufficient number of good horses suitable for use in the Cavalry in the country itself. Very recently voices have been raised in Czechoslovakia also declaring that the Cavalry is too weak and demanding that it be strengthened.

There are only 10 regiments available organized into 3 cavalry brigades. The regiment consists of 4 cavalry squadrons each with 8 light machine guns, and 2 machine gun squadrons, each with 8 light machine guns, and 2 machine gun squadrons, each with 8 heavy machine guns, also one engineer squadron and one telegraph section. It is worthy of note that the Czechs have no horse artillery, but that the cavalry brigades have only motorized batteries, which is decidedly a mistake. Moreover, the 3 brigades have one Jäger battalion each, 1 cyclist detachment and one section of armored cars.

Rumania

Since conditions for Cavalry are favorable here, the Cavalry is comparatively strong, that is to say, 21 regiments in all. Nevertheless the Rumanian Cavalry is not uniform. The 12 Rosiori (Red Hussar) Regiments and the one guard regiment are active units consisting of 4 squadrons of cavalry, 1 machine gun squadron and 1 headquarters squad each. The cavalry squadrons have 4 light, the machine gun squadron 8 heavy machine guns. On the contrary the 8 Calarasi Regiments (ordinary Cavalry) are kept at half strength in time of peace; the soldiers in the Calarasi Regiments serve under a sort of militia system and have to report at maneuvers and in case of war bringing their own horses and saddles.

Since the Rumanian Army still has great difficulties to meet in the matter of effectives, it is desired to disband some of the Calarasi Regiments and use the remaining men to fill up the Rosiori Regiments.

There are 3 cavalry divisions of 6 regiments, 3 horse batteries and 1 bicyclist company each; the Rumanian cavalry division therefore has almost no modern means of combat. However, a few armored

car squadrons have been organized, and it is also said that machine gun battalions on motorcycles will also be organized and some batteries are to be motorized.

Jugoslavia

In spite of the fact that much of the country is mountainous, great importance is placed on the cavalry, and it therefore is very strong. The whole army is still engaged in reorganization; the Cavalry is being increased from 9 to 16 regiments. At the end of 1928 there were 13 regiments available.

The cavalry regiment in the Yugoslav Army consists of 4 squadrons of troopers with 4 light machine guns, one machine gun squadron of 6 heavy machine guns and one telegraph squad each.

Of the larger units there are at present 3 cavalry divisions, a fourth will also be organized. Each division has 4 regiments, 1 horse artillery battalion and 1 bicyclist battalion. The Yugoslav cavalry division like the Rumanian is comparatively weak and has very few modern means of combat. This is connected with the circumstance that both of these countries have few industries of their own and the greater part of their war materiel has to be imported from abroad, from France and Czechoslovakia.

Jugoslavia intends to develop the cavalry divisions further and for that purpose first of all to organize machine gun battalions on armored motorcycles.

Germany

As we all know, the organization of the German Army was prescribed in detail by the Treaty of Versailles. For that reason it has had to organize 18 cavalry regiments, which is a great deal when compared to the 21 infantry regiments. The cavalry regiment, however, consists of only 4 squadrons, has no light machine guns and only one platoon of heavy machine guns, which has to be formed of men from the squadrons of troopers, as does the telegraph squad. The organization of the German Cavalry, therefore, as the result of the limitation placed upon it by the Treaty of Peace, does not correspond to modern views. Insofar as possible, the German Cavalry is very well trained.

The 18 cavalry regiments are organized into 3 cavalry divisions, which, however, have only one horse artillery battalion and, aside from that, no modern means of warfare.

Spain

In the year 1927 the Cavalry was somewhat decreased and at present is composed of 27 regiments. Of these, only 11 regiments are at full strength, each having 4 cavalry squadrons and 1 machine gun squadron with 8 heavy machine guns. These eleven regiments form 5 cavalry brigades, each of which also has 1 horse artillery battalion and 1 cyclist battalion. Eight regiments are at half strength and in war form the Cavalry for the infantry divisions. Finally the last 8 regiments have in time of peace on the whole only one squadron at full strength, otherwise merely skeleton organizations and are used in war to form the Cavalry for the divisions for the second and third line.

Turkey

Turkey has regular and irregular Cavalry. The regular Cavalry has the strength of 12 regiments, the regiment has 3 cavalry squadrons and 1 machine gun squadron. How many irregular regiments there are is not exactly known, probably 12 to 15, with a highly varying number of squadrons and not organized uniformly in other respects.

There are 5 cavalry divisions, which are not uniform in organization; 3 to 6 regiments, then a few horse batteries, 1 to 2 bicycle companies and some also have one armored car detachment.

SCANDINAVIAN COUNTRIES

The *Swedish* Army has been in a state of reorganization since the year 1926, which, according to the socialistic defense program, would result in a far-reaching disarmament. However, this program is not being executed, but a new plan has been worked out, which, however, has not yet been finally determined.

In any case, however, the Cavalry will be greatly reduced. Up until now there have been one guard and 8 line cavalry regiments; the latter will probably be decreased to 3; the guard regiment may remain. Each regiment will have 4 squadrons of Cavalry and 1 machine gun squadron.

In *Norway* also, the Cavalry is being decreased on the basis of the new defense program; how great this decrease will be is not yet known. Up until now there have been 3 regiments, each with four squadrons of cavalry and 1 machine gun squadron.

MINOR EUROPEAN STATES

Finland has a very strong and good army for its size, has two cavalry regiments, each of 3 cavalry squadrons, 1 machine gun squadron and 1 bicyclist squadron.

The three small Baltic countries, *Esthonia*, *Latvia*, and *Lithuania* naturally have only very small armies with very small forces of Cavalry, that is to say, each country only 1 regiment of 3 to 4 squadrons.

Denmark is also about to make a drastic reorganization of its army. So far it has had 3 cavalry regiments of 3 squadrons each. In Denmark it is desired to do away with the Cavalry as such and to make Mounted Infantry out of it, or transform it into bicyclist detachments. It is clear that this would naturally be bad; how far this reorganization will be carried out in reality is not yet known.

Holland: The Dutch Cavalry consists of 2 regiments, each having 4 squadrons of troopers, 1 machine gun squadron and 1 cavalry gun battery. The squadrons of cavalry have 4 light machine guns each, the machine gun squadron 6 heavy machine guns, the battery four light cannon of 6cm. caliber. This makes Holland the only European country in whose army cavalry guns have actually been introduced.

Of larger units there is one light brigade of 2 cavalry regiments, 1 bicyclist regiment and 1 horse artillery battalion.

Belgium: The whole Cavalry—6 regiments—is organized into one cavalry corps, there being 2 cavalry divisions, each having 3 cavalry regiments, 1 bicyclist

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A Long March to Battle

Colonel M. B. Stokes, G. S. C.

THE following account of a 469 mile march of a cavalry regiment during the Civil War from South Carolina to Virginia, followed by almost immediate participation in active operations, is of interest to cavalymen as an example of strategic mobility of the Cavalry.

The account is taken from the journal and letters of Lieutenant Colonel William Stokes of the 4th South Carolina Cavalry. This regiment was among the troops drawn from the coast of South Carolina and sent to reinforce Lee in his operations against Grant in the Virginia Campaign of 1864-65.

This regiment, together with the 5th and 6th Regiments of South Carolina Cavalry, constituted Butler's Brigade, commanded by Brigadier General M. C. Butler. On reaching Richmond it was assigned to Major General Wade Hampton's Division which formed part of Lee's Cavalry.

Since the troops of these regiments had served continuously from the early part of the war in the sandy coastal belt of South Carolina, the shoeing of their horses had been unnecessary. Before undertaking the march to Virginia it was of course necessary to have all of their animals shod. In order to get this done as expeditiously as possible, the regiments were ordered to assemble first at Columbia, S. C., where there were government supplies and facilities which could be utilized to advantage for this purpose.

There was considerable delay, however, in getting this work done; and the departure of the regiment from Columbia, was, after all, a hurried one, and undertaken before the shoeing of all the horses had been completed.

For the Confederacy, the getting of these troops to Lee in Virginia was urgent. As a march, the distance would be great. It was decided that one way to help marching conditions would be to have the regiments march separately, instead of in one command. The desire to lighten the load on the mounts for such a long and tedious march was natural. In effecting this, however, a serious error was committed, for the regiments were authorized to ship their arms to Richmond by rail instead of retaining them with the command. This error was forcefully brought home to them later, as will be noted from incidents that transpired while enroute.

The 4th S. C. Cavalry consisted of ten troops, or companies as then designated, with a total strength of about 900 officers and men. The regiment was under the command of Colonel B. F. Rutledge with Lieutenant Colonel William Stokes as second in command.

The regiment left Columbia S. C., on April 29, 1864, and arrived at Richmond, Va., May 23—having made the march of 469 miles in 24 days, including

two days' stop-over at Camden and one day at Greensboro for the purpose of having horses shod.

From the journal of Colonel Stokes the schedule of March as actually made was as follows:

From Columbia, S. C.	22 miles	Apr. 29, 1864
Mill Pond	23 miles	30,
Lay-over for two days to have horses shod.		
From Camden	26 miles	May 2,
Ingram	15 miles	3,
Lancaster	22 miles	4,
Pleasant Valley	20 miles	5,
Charlotte, N. C.	22 miles	6,
Concord	22 miles	7,
Salisbury	22 miles	8,
Lexington	17 miles	9,
High Point	18 miles	10,
Greensboro	15 miles	11,
Grahams	22 miles	13,
Cedar Grove	20 miles	14,
Mt. Zion	22 miles	15,
Oak Hill	20 miles	16,
Clarksville, Va.	20 miles	17,
Christianville	20 miles	18,
Keysville	20 miles	19,
Burksville	23 miles	20,
Amelia, C. H.	23 miles	21,
Georgeries	25 miles	22,
Richmond	10 miles	23.

Left Richmond May 26th and marched to the South Anna. Though considerably reduced in strength for lack of effective mounts (due to shortage of shoes and general hardships of the march) the regiment went into action on May 28th.

Journal of the March

Extracts from letters and journal of Lieut. Col. Wm. Stokes, with reference to the movement of the regiment follow.

Coosawhatchie, S. C., March 30, 1864.

The orders from the War Department have reached us to move to the Army of Northern Virginia and report to Brig. Gen. M. C. Butler.

On the 1st of April, 1864, I was relieved from the command of the Coosawhatchie Sub-District and was ordered to report to my regiment at Pocotaligo, S. C. The regiment left Pocotaligo on the 10th of April and arrived at Columbia, S. C. on the 15th, and with two other regiments, the 5th and 6th S. C. Cavalry, was reviewed by Major General Wade Hampton on April 20th.

Camp of 4th S. C. Cavalry,
near Columbia, S. C., April 27, 1864.

I arrived here yesterday morning. The horses are not yet all shod; consequently the regiment will not move until Saturday next. All of the men who are on furlough are to join the regiment at Greensboro, N. C., and are to march through on their horses.

General Hampton has turned over the movement of the troops from here to General Butler. General Hampton leaves for Richmond tonight. Colonel Rutledge is to join us also at Greensboro.

Camp of 4th S. C. Cavalry,
Camden, S. C., May 1st, 1864.

We left Columbia on Friday morning very hastily to evade an order that was being issued to reduce the companies by taking those men who last joined and giving us back dismounted men who were already transferred, which would have injured the regiment very much. So Gen'l. Butler, Colonel Rutledge and I concluded it was best to get away at once. We arrived here Saturday about 1:30 P. M., and are staying over here today, shoeing the horses that had not been shod when we left Columbia.

Camden May 2nd, 1864.

We got through shoeing all of the horses today.

Camp 4th S. C. Cavalry, on march
Salisbury, N. C., May 8th, 1864.

Arrived here a few minutes ago, (three o'clock P.M.). We marched twenty-two miles today.

Camp 4th S. C. Cavalry,
Greensboro, N. C., May 12th, 1864.

Arrived here yesterday evening. Col. R. (Rutledge) and the furloughed portion of the command were awaiting us. We will be here until tomorrow to get some horses shod. We got orders here to keep on as fast as possible.

We had to ford the Yadkin six miles this side of Salisbury. Anticipated some trouble, but got the command over safely. The river was about 300 yards wide and caught the horses about half saddle skirt. Colonel Dumovant's Regiment, (the 5th S. C. Cavalry), preceded us.

Camp 4th S. C. Cavalry,
Clarksville, Va., May 18, 1864.

We received a dispatch at Oak Hill night before last from the A.Q.M., A.C.S., and the Ordnance officer of this place that the enemy were within 30 miles and moving on this point, and asked us to hasten on to its defense. We armed about 250 men with all the sabers and pistols we had and sent them on. On arriving here, however, we learned that the raiding party was bearing down on the peninsula to Butler's Army. We have sent off to reconnoiter the country ahead of us, before moving this morning. Hope we will not meet them until our regiment has gotten their arms again.

We cross the Roanoke this morning, and go to Christianville tonight.

Camp 4th S. C. Cavalry,
Kingsville, Va., May 19, 1864.

We did not go to Christianville as I wrote you from Clarksville. Col. R. got some alarming reports of the enemy's raiding party being there, which proved to be false. As soon as a little over half of the regiment had gotten across the Roanoke River which we had to cross in flat boats (7 of them, the river being

about 400 feet wide) he immediately moved off with them to Roanoke station, 15 miles out of the way, and sent me word to come on as fast as possible with the others. It took two hours to complete the crossing.

The Colonel also ordered that the wagons be left behind. We had something to eat on the road yesterday, but did not get our breakfast this morning until about noon. The wagons will be up with us again tonight.

Camp 4th S. C. Cavalry,

In 10 miles of Richmond, Va., May 23, 1864.

Spent the night here, with but little for man or horse.

May 24th.

We passed through the city about noon yesterday, and are now encamped four miles out on the Brooks Turnpike Road. Our camp is near where Stuart was killed in a battle with that raiding about one month ago.

Our horses are not getting more than one-third feed, and we are on the shortest sort of rations ourselves. It has begun to tell on the horses. *Marshall's** back has become a little sore within the last three or four days.

Camp 4th S. C. Cavalry,
Near Richmond, Va., May 25, 1864.

Saw General Butler yesterday. He told me we were to go to the front tomorrow (Thursday). We are to go to Lee's Army near Hanover Junction, about 20 miles from here. I think the probabilities are the Regiment will go into action very soon, for the Yankee Army is pressing Lee very hard. In fact Richmond is very closely besieged on the north and east.

Headquarters 4th S. C. Cavalry,

On North Side South Anna, Va., May 27th, 1864.

We are now about two miles from Hanover Junction and within a short distance of General Lee's Headquarters, awaiting orders from General Hampton, whose headquarters are about 5 miles from us.

Camp of 4th S. C. Cavalry near
Atlett Station, Va., Control R. R.

11 miles north of Richmond, May 29, 1864.

Yesterday about four miles from here, near the Pamunky River, we had for three or four hours a very severe engagement with an advance element of Grant's Army. General Hampton fought a Yankee Cavalry Corps supported by Infantry with his Cavalry Division, about 7000 strong. General Butler was not with us, so Col. Rutledge commanded the Brigade and I was in command of the Regiment.

Our Regiment fought most gallantly and suffered very seriously. I held my line in perfect order until we were nearly surrounded and we were ordered to fall back. I had in action about 300 men exclusive of horse holders, and so far as I can ascertain there are about 125 killed, wounded and missing. Gen'l. Hampton met me as we were falling back and told me I did all that could have been expected, and to

* Lieutenant Colonel Stokes' own mount.

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Organization and Strength of National Guard

Colonel William H. Waldron, Executive Officer, Militia Bureau

The Second Article of a Series that Presents in One Place Information that Has Never Before Been Brought Together

WHEN the National Guard was drafted into the federal service in 1917 for the World War, it was incorporated into the Army of the United States and ceased to be state troops. This left the States without a military force and necessitated a complete reorganization during and after the war. It is one of the salient purposes of the National Guard Bill now before Congress to do away with the necessity for this reorganization of the National Guard after a period of federal service. By giving the National Guard a dual status of state and federal troops it may be called to active duty and at the termination of such duty revert to its status of state troops.

In the course of the war period there arose a demand for a military force for the preservation of order and the protection of property, and in a number of instances it was provided for by the organization of what were known as Home Guards. This force consisted of officers who had had some military experience and who were above the draft age or had been found physically disqualified for active service, and enlisted men secured by voluntary enlistment from among those who were not within the draft age, or who had been drafted and discharged on account of physical disability. At the date of the Armistice, there were 48 battalions of Home Guards distributed over 32 States. They were employed in guarding shipyards, docks, railroad terminals, arsenals, government buildings, property and war supplies, and other public utilities. At the date of the Armistice, the force had reached a strength of 1,216 officers and 25,068 enlisted men.

In a number of instances the Home Guard form of organization did not meet the requirements and state authorities presented strong arguments for the organization and allocation of national guard units. The War Department authorized the organization of units in 14 States, with the express understanding that they would in no wise be considered available for service overseas. Included in this authorization was a provision for the organization of two national guard cavalry brigades in Texas. These were designed to relieve the regular cavalry forces then on the Mexican Border and thus make them available for service in France when the conditions of warfare on the Western Front rendered it probable that cavalry troops in large numbers would be required for the open warfare operations then in prospect.

After the war, and pending the restoration of normal peace-time conditions in the United States, it appeared

desirable to suspend further organizational activities in the National Guard until such time as a definite military policy could be established by Congress and the necessary funds appropriated for the maintenance of citizen forces.

However, there was a limited amount of funds available from the 1919 appropriations, and they were made available for the purpose of organizing a few units in those States in which it appeared most likely that the services of national guard troops would be required for the maintenance of law and order and for the protection of government and private property. By June 30, 1919, the number thus organized had grown to 1,198 officers and 36,012 enlisted men, allocated to 24 States.

At this time both the War Department and Congress were studying the military situation in the light of our recent war experience, with a view to arriving at conclusions on a military policy, and this made it particularly undesirable to go ahead too rapidly with the reorganization of the National Guard. There were many questions of organization to be considered. The National Defense Act of 1916 prescribed that the National Guard should have the same organization as the Regular Army. The Regular Army was still organized on its war-time basis, and a peace-time organization had not been decided upon. In general, the people were "fed up" with the military. In the medium sized communities it was difficult to find a hundred men who would volunteer for service in the National Guard. In the smaller communities it was impossible. State authorities, faced with this situation, requested a lower recognition strength for their national guard units, and the expedient of organizing infantry war-strength platoons was adopted in some of the States. These platoons were combined to make companies.

Considerable progress was made in the organization of the National Guard during the latter half of 1919 and the early part of 1920. On June 4, 1920, the provisions of the amendment to the National Defense Act of 1916 became a law. Section 62 of that measure provided for the strength of the National Guard and prescribed that the expansion of this force should be made by increments, the last of which was to be completed in 1924.

Table No. 1 shows the strength of the National Guard contemplated on June 30 of each of the years from 1920 to 1924. The figures are interesting in the light of what has happened since the passage of

Table No. 1

Strength of the National Guard as authorized by the National Defense Act of June 4, 1920.¹

State	First increment, 1920; 200 per Member of Congress	Second increment, 1921; 300 per Member of Congress	Third increment, 1922; 450 per Member of Congress	Fourth increment, 1923; 675 per Member of Congress	Final increment, 1924; 800 per Member of Congress
1. Alabama	2,400	3,600	5,400	8,100	9,600
2. Arizona	600	900	1,350	2,025	2,400
3. Arkansas	1,800	2,700	4,050	6,075	7,200
4. California	2,600	3,900	5,850	8,775	10,400
5. Colorado	1,200	1,800	2,700	4,050	4,800
6. Connecticut	1,400	2,100	3,150	4,725	5,600
7. Delaware	600	900	1,350	2,025	2,400
8. District of Columbia	600	900	1,350	2,025	2,400
9. Florida	1,200	1,800	2,700	4,050	4,800
10. Georgia	2,800	4,200	6,300	9,450	11,200
11. Hawaii	600	900	1,350	2,025	2,400
12. Idaho	800	1,200	1,800	2,700	3,200
13. Illinois	5,800	8,700	13,050	19,575	23,200
14. Indiana	3,000	4,500	6,750	10,125	12,000
15. Iowa	2,600	3,900	5,850	8,775	10,400
16. Kansas	2,000	3,000	4,500	6,750	8,000
17. Kentucky	2,600	3,900	5,850	8,775	10,400
18. Louisiana	2,000	3,000	4,500	6,750	8,000
19. Maine	1,200	1,800	2,700	4,050	4,800
20. Maryland	1,600	2,400	3,600	5,400	6,400
21. Massachusetts	3,600	5,400	8,100	12,150	14,400
22. Michigan	3,000	4,500	6,750	10,125	12,000
23. Minnesota	2,400	3,600	5,400	8,100	9,600
24. Mississippi	2,000	3,000	4,500	6,750	8,000
25. Missouri	3,600	5,400	8,100	12,150	14,400
26. Montana	800	1,200	1,800	2,700	3,200
27. Nebraska	1,600	2,400	3,600	5,400	6,400
28. Nevada	600	900	1,350	2,025	2,400
29. New Hampshire	800	1,200	1,800	2,700	3,200
30. New Jersey	2,800	4,200	6,300	9,450	11,200
31. New Mexico	600	900	1,350	2,025	2,400
32. New York	9,000	13,500	20,250	30,375	36,000
33. North Carolina	2,400	3,600	5,400	8,100	9,600
34. North Dakota	1,600	2,400	3,600	5,400	6,400
35. Ohio	4,800	7,200	10,800	16,200	19,200
36. Oklahoma	2,000	3,000	4,500	6,750	8,000
37. Oregon	1,000	1,500	2,250	3,375	4,000
38. Pennsylvania	7,600	11,400	17,100	25,650	30,400
39. Rhode Island	1,000	1,500	2,250	3,375	4,000
40. South Carolina	1,800	2,700	4,050	6,075	7,200
41. South Dakota	1,000	1,500	2,250	3,375	4,000
42. Tennessee	2,400	3,600	5,400	8,100	9,600
43. Texas	4,000	6,000	9,000	13,500	16,000
44. Utah	800	1,200	1,800	2,700	3,200
45. Vermont	800	1,200	1,800	2,700	3,200
46. Virginia	2,400	3,600	5,400	8,100	9,600
47. Washington	1,400	2,100	3,150	4,725	5,600
48. West Virginia	1,600	2,400	3,600	5,400	6,400
49. Wisconsin	2,600	3,900	5,850	8,775	10,400
50. Wyoming	600	900	1,350	2,025	2,400
51. Porto Rico	1,400	2,100	3,150	4,725	5,600
52. Alaska	150	225	340	500	600
Total	108,950	163,425	245,140	367,700	435,800

¹ Sec. 62, defense act: "The number of enlisted men of the National Guard to be organized under this act * * * shall be for each State in the proportion of two hundred such men for each Senator and Representative in Congress from such State, and a number to be determined by the President for each Territory and the District of Columbia, and shall be increased each year thereafter in the proportion of not less than fifty per centum until a total peace strength of not less than eight hundred enlisted men for each Senator and Representative in Congress shall have been reached" * * *.

the law in 1920. The program has never even been approached, because Congress has consistently failed to provide the funds necessary for its consummation. The strength provided for the third increment has not yet been reached, and the indications are that it will not be attained for a number of years to come.

It is interesting to trace the organization strength progress of the National Guard through the years since reorganization was begun in 1919. The tabulation (next column) shows the actual strength of the National Guard as of June 30, each year from 1919-1930.

Early in 1922 it became apparent that the national guard allotment which had been provided for in the National Defense Act was entirely too comprehensive,

and in view of financial and other considerations could not be accomplished by either the States or by the United States.

Accordingly, a committee of the War Department General Staff composed of officers of the Regular Army and the National Guard was assembled for the purpose of studying the problem and submitting a modification of the basic plan that would meet the existing condition

This committee consulted with the corps area and state authorities and with the Chief of the Militia Bureau. It arrived at the conclusion that if the National Guard could be expanded to a strength of 250,000 the necessary combat elements of that component could be organized within the number. The elements to be provided were 18 infantry and four cavalry divisions, together with certain corps, army, G. H. Q., harbor defense, and special allotment troops which had been allocated and which were considered essential for immediate mobilization in the event of an emergency. The expansion was to take place over a period extending to June 30, 1926. The Secretary of War approved the plan on January 23, 1923.

In the summer of 1927 it became apparent that, due to the Government's financial program, the expansion of the National Guard to the 250,000 strength could not be accomplished within a reasonable time, and that any further attempt to expand in accordance with that plan would serve to increase the unbalanced state of organization. Consequently, in August of 1927, the Chief of the Militia Bureau submitted a memorandum to the Chief of Staff proposing that a well defined program with an ultimate definite objective be adopted for the organization and strength of the National Guard; that all "deferred units" under the 250,000 program be withdrawn from allotment to the National Guard; that the allotment of units be divided into two categories "active" and "inactive". He stated that by adhering to this classification the organization of the National Guard could be completed and maintained at 110 per cent maintenance strength with a total aggregate of 210,000, including the state staffs and detachments. This memorandum was the subject of a study by a committee of the General Staff composed of officers of the Regular Army and the National Guard and was tentatively adopted as the plan for the future expansion of the National Guard.

At the annual convention of the National Guard Association in Los Angeles in 1929, a resolution was

Date June 30	Officers	Warrant Officers	Enlisted Men	Aggregate
1919	1,198	None ¹	36,012	37,210
1920	2,073	None	54,017	56,090
1921	5,843	None	107,797	113,640
1922	8,744	None	150,914	159,658
1923	9,675	None	150,923	160,598
1924	10,900	87	166,432	177,428
1925	11,435	160	165,930	177,525
1926	11,273	162	163,534	174,969
1927	12,010	182	168,950	181,142
1928	12,214	184	168,796	181,221
1929	12,547	188	164,453	176,988
1930	12,732	198	169,785	182,715

¹ No warrant officers were appointed in the National Guard until 1924.

Table No. 2

The allocated and actual strength of the National Guard as of June 30, 1930.

	Allocated Strength June 30, 1930			Actual Strength June 30, 1930		
	Officers	Warrant Officers	Enlisted Men	Officers	Warrant Officers	Enlisted Men
Alabama	220	2	2,503	202	1	2,444
Arizona	83	1	1,189	65	1	1,072
Arkansas	166	2	2,008	144	2	2,025
California	505	7	6,077	414	7	5,803
Colorado	156	1	1,770	137	1	1,646
Connecticut	345	6	4,081	299	5	3,886
Delaware	39	1	800	52	1	757
District of Columbia	76	1	987	63	1	921
Florida	183	3	2,326	171	3	2,266
Georgia	263	3	3,509	244	3	3,362
Hawaii	108	2	1,617	100	2	1,547
Idaho	107	2	1,201	100	2	1,161
Illinois	697	11	8,808	626	11	9,306
Indiana	388	6	4,540	345	6	4,320
Iowa	264	4	3,519	257	4	3,265
Kansas	256	4	3,027	251	4	2,864
Kentucky	230	3	2,736	211	3	2,568
Louisiana	145	2	1,901	125	2	1,818
Maine	189	3	2,310	166	3	2,179
Maryland	265	4	3,221	239	4	2,991
Massachusetts	712	10	9,045	642	10	8,999
Michigan	368	5	4,248	326	5	4,284
Minnesota	387	5	4,730	352	5	4,599
Mississippi	126	2	1,650	120	2	1,521
Missouri	332	5	4,308	308	5	4,123
Montana	76	1	1,132	72	1	1,049
Nebraska	114	2	1,401	111	2	1,556
Nevada	11	—	212	6	—	109
New Hampshire	82	2	1,007	73	2	975
New Jersey	396	6	4,671	342	5	4,314
New Mexico	79	2	959	73	1	901
New York	1,524	22	19,937	1,340	20	19,754
North Carolina	275	5	3,219	243	5	3,087
North Dakota	77	1	1,119	77	1	1,071
Ohio	666	9	8,153	603	8	7,783
Oklahoma	418	6	4,938	403	6	4,610
Oregon	206	3	2,867	202	3	2,849
Pennsylvania	900	13	11,346	822	13	10,674
Porto Rico	91	1	1,429	87	1	1,421
Rhode Island	160	3	1,799	136	2	1,693
South Carolina	148	2	2,074	128	1	1,987
South Dakota	106	2	1,260	101	2	1,231
Tennessee	212	3	2,393	189	3	2,286
Texas	636	10	7,769	585	10	7,329
Utah	134	2	1,306	119	2	1,262
Vermont	87	1	1,144	82	1	1,107
Virginia	270	4	3,696	258	4	3,523
Washington	293	3	2,490	212	3	2,463
West Virginia	110	2	1,868	121	2	1,862
Wisconsin	371	6	4,471	343	6	4,511
Wyoming	52	1	610	45	1	571
Total	14,093	207	175,801	12,732	198	169,785
Aggregate			190,191			182,715

adopted which provided for the expansion to 210,000 in four annual increments. There is now a bill before Congress, based upon the resolution, which provides for a strength of 210,500 to be made in four annual increments. It has not been acted on by the military committees and will have to be reintroduced at the next session of Congress.

There is now a project under consideration in the Militia Bureau for an increase of 5,000 men in the National Guard. Its consummation depends upon whether or not there will be sufficient funds to take care of these men. It is proposed that the increase shall be made in the grade of private and spread laterally over the National Guard. This will have the effect of giving units about 112 per cent of their maintenance strength and allow unit commanders a little more leeway in making the grade for armory drill pay. It is not contemplated that any new units will be organized from this increase in strength. The organization of new units involves an outlay of money

for initial equipment that cannot be met with the funds now available to the Militia Bureau.

It might appear to be a simple matter to provide for this increase of 5,000 men in the National Guard but there are a number of problems connected with it that have to be solved. Under the existing economic conditions it may be assumed that military expenditures cannot be increased and that the national guard budget will have to remain as it is for a period of time.

This 5,000-man increase will cost approximately \$306,950, and if this additional expense is met the funds will have to come from other national guard projects which have become more or less stabilized over a period of years. The provision of funds for this increase is the problem of the Militia Bureau, and measures are being taken to provide for it as far as practicable.

The present allocated and actual strength of the National Guard is shown in detail in Table No. 2.

The allocated strength is a fixed quantity and depends upon the funds made available by Congress. The actual strength varies from month to month. It depends upon the separation from active service, and the appointment of officers and warrant officers; and the discharge and enlistment of the enlisted personnel.

The apparent shortage in officers is not so extensive as indicated in the table, because in a large majority of cases the vacancies have been filled by the state authorities and the federal recognition of the appointees is in process of accomplishment in the Militia Bureau. Only those officers who have been federally recognized are included in the numbers.

The following tabulation shows the budget projects that are involved in this increase in strength and which have to be provided for:

Estimated Increase in the Appropriations for the Fiscal Year 1933, to Provide for the Training and Equipment of 5,000 Increase in the National Guard.

Project No.	Appropriation	Item	Amount
3	Arming, Equipping, and Training the National Guard.	15-day camps It is estimated that 90% of the increase will attend the camp during the fiscal year 1933. The per capita cost (privates) will be \$34.80, 90% of 5,000, 4,500 by \$34.80 equals \$156,600.	\$156,600
15	Arming, Equipping, and Training the National Guard.	Alteration and renovation of clothing	4,250
16	Arming, Equipping, and Training the National Guard.	Maintenance or organization equipment	2,500
1	Armory Drill Pay	Armory Drill Pay It is estimated that 80% of the 5,000 additional men will attend the 48 armory drills at the rate of pay of \$1 per drill (privates). 80% of 5,000 is 4,000. 4,000 by 48 equals \$192,000. One-half of this amount to be added to the 1932 appropriations, as there is an item in the 1932 budget covering it.	96,000
1	Arms, Uniforms, Equipment, etc.	Uniforms Based upon present prices of the reimbursable items of the uniform at \$6 per man.	30,000
4	Arms, Uniforms, Equipment, etc.	Ammunition It is estimated that of the 5,000 increase, 3,000 will be authorized to fire the rifle and 2,000 the pistol at an average cost of \$4.20 and \$2.50 per man, respectively.	17,000
Total increase			\$306,350

Under Militia Bureau regulations no State may increase the strength of its National Guard above the number allocated by the Chief of the Militia Bureau. In practice, however, occasionally a State will go over the allotment in the enthusiasm of a recruiting campaign. The current strength of the National Guard is constantly checked up in the Personnel Division of the Office of the Chief of the Militia Bureau, and when a State goes over strength the state authorities are called upon to bring it back within the allotment without delay. The methods by which this may be done is left to the state authorities, but it generally means the discharge of the number of men necessary to accomplish the result; so, there is little or no advantage to be gained by going over strength at any time.

The apparent wide discrepancy between allocated strength and actual strength is not so great when it is considered that the difference between the two figures is spread over a considerable number of officers whose federal recognition is in process as explained above, and the further fact that the difference in enlisted strength is spread over nearly 4,000 units of the National Guard. It is necessary to maintain this difference in order to take care of the constant turnover due to discharges for one cause or another, and the enlistment of men as replacements to fill the vacancies in the ranks.

The army geographical departments were abolished by orders dated August 20, 1920, and nine corps areas and three departments were organized. This geographical organization has met the requirements in every way.

It was decided that two infantry divisions and the National Guard's proportion of corps, army and general headquarters reserve troops, together with certain special allotment organizations, should be allocated to each of the corps areas. This geographical organization and the allotment of national guard troops at the present time, is shown in the tabulation which follows:—

First Corps Area

Conn., Maine, Mass., N. H., R. I., Vt.

26th Div.—43d Div.—Corps Troops: 197th C. A. (AA)—Army Troops: 211th C. A. (AA), 59th Cav. Brig.—Coast Defense Troops: 240th C. A. (HD), 241st C. A. (HD), 242d C. A. (HD), 243d C. A. (HD)—Special Allotment: 3d Bn., 372d Inf.—State Staffs and Dets.

Second Corps Area

Del., N. J., N. Y.

27th Div.—44th Div.—Corps Troops: 258th H. F. A. Regt. (155-mm. Gun, 198th C. A. (AA), 101st Sig. Bn.—Army Troops: 212th C. A. (AA), 51st Cav. Brig., 102d Sep. Cav. Regt.—Coast Defense Troops: Hq. & Hq. Det. C. A. Brig., 245th C. A. (HD), 244th C. A. (HT), 261st C. A. Bn. (HD), 262d C. A. Bn. (HD)—Special Allotment: 93d Brig. Hq. & Hq. Co., NGNY, 10th Inf. NGNY, 14th Inf. NGNY, 165th Inf. NGNY, 369th Inf. NGNY—State Staffs and Dets.

Third Corps Area

Md., Pa., Va., D. C.

28th Div.—29th Div.—Army Troops: 213th C. A. (AA), 52d Cav. Brig., 165th Sep. Bn. F. A. 75-mm. Gun (Horse), 125th Engr. Combat Bn. Mounted, 260th C. A. (AA)—Coast Defense Troops 246th C. A. (HD)—Special Allotment: 1st Bn. 372d Inf.—1st Sep. Co. Inf.—State Staffs and Dets.

Fourth Corps Area

Ala., Fla., Ga., La., Miss., N. C., S. C., Tenn.

30th Div.—31st Div.—Corps Troops: 2d Bn. 133d Engrs., General Service, 146th Motorcycle Co.—Army Troops: 164th Engr. Regt., General Service, Hq. Tr. Sp. Trs. 23d Cav. Div., 55th Cav. Brig., 141st Sep. Bn. F. A. 75-mm. Gun (Horse), 127th Engr. Combat Bn. Mounted, 123d Med. Sq.—Coast Defense Troops: 252d C. A. (TD), 263d C. A. (HD), 264th C. A. (HD), 265th C. A. (HD)—Special Allotment: 122d Inf.—State Staffs and Dets.

Fifth Corps Area

Ind., Ky., Ohio, W. Va.

37th Div.—38th Div.—Army Troops: 54th Cav. Brig.,; Sig. Tr. 22d Cav. Div. Sp. Trs., Vet. Tr. 122d Med. Sq.—Special Allotment: 201st Inf., 2d Bn. 372d Inf.—State Staffs and Dets.

Sixth Corps Area

Ill., Mich., Wis.

32d Div.—33d Div.—Corps Troops: 182d F. A. (155-mm. How.), 202d C. A. (AA), 135th Med. Regt., 114th Sig. Bn. Army Troops: Hq. Tr. & Ord. Tr. Sp. Trs. 22d Cav. Div., 53d Cav. Brig., 166th Sep. Bn. F. A. 77-mm. Gun (Horse), 126th Engr. Combat Bn. Mounted, Amb. Tr. 122d Med. Sq., 22d Cav. Div. QM Train—GHQ Reserve Troops: 216th F. A. (75-mm. Gun TD)—Special Allotment: 8th Inf.—State Staffs and Dets.

Seventh Corps Area

Ark., Iowa, Kans., Minn., Mo., Nebr., N. D., S. D.

34th Div.—35th Div.—Corps Troops: 203d C. A. (AA), 154 Obs. Sq., Med. Dept. Det. 154th Obs. Sq.—Army Troops: 206th C. A. (AA), 216th Amb. Co., 216th Hosp. Co., Sp. Troops (less Hq. Tr. & Tk. Co. 24th Cav. Div.), 57th Cav. Brig., 24th Cav. Div. QM Train—GHQ Reserve Troops: 128th F. A. (75-mm. Gun Portee), 147th F. A. (75-mm. Gun Portee), 142d F. A. (75-mm. Gun TD)—Special Allotment: 153d Inf., 92d Brig., consisting of Brig. Hq. & Hq. Co., 205th and 206th Inf.—State Staffs and Dets.

Eighth Corps Area

Ariz., Colo., N. M., Okla., Texas

36th Div.—45th Div.—Corps Troops: 137th Med. Regt., 106th Sig. Bn.—Army Troops: 56th Cav. Brig., 111th Cav. (Non Div.), 168th Sep. Bn. F. A. 75-mm. Gun (Horse), 128th Engr. Combat Bn. Mounted, 124th Med. Sq., 117th Sep. Sq. (Non Div.) Cav.—Coast Defense Troops: 268th C. A. Bn. (HD) State Staffs and Dets.

Ninth Corps Area

Calif., Idaho, Mont., Nev., Ore., Utah, Wash., Wyo.

40th Div.—41st Div.—Corps Troops: 190th F. A. (155-mm. How.), 196th F. A. (155-mm. Gun), 251st C. A. (AA)—Army Troops: Hq. Tr. Sp. Trs. 24th Cav. Div., 58th Cav. Brig.—Coast Defense Troops: 248th C. A. (HD), 249th C. A. (HD), 250th C. A. (HT)—Special Allotment: 200th Inf.—State Staffs and Dets.

Porto Rico (Second Corps Area)

295th Inf.—1st Bn. 296th Inf.—State Staff and Det.

Hawaii

298th Inf.—299th Inf.—State Staff and Det.

The Officers' Reserve Corps

Major L. L. Stuart, C. A. C.

EDITOR'S NOTE—The information contained in the following article is probably well known to reserve officers. Due to the many changes which have been made in the regulations pertaining to the Organized Reserve it has been very difficult for regular officers not on reserve duty to keep up to date on the requirements for appointment, promotion, and reappointment of reserve officers. Major Stuart was asked to write an article, supplying the general information which every regular and national guard officer should have.

IN 1917, when we found ourselves involved in a war of the first magnitude, our most serious deficiency was our lack of trained officers; in fact a lack of sufficient officers of any kind. We found that men could be obtained and trained in a relatively short time, provided we had the officers to train them. The problem of developing officers was much more difficult.

In case we should become involved in a war at present we would find that we had in the Army approximately the following officers:—

12,000 Regulars
13,000 National Guard
100,000 Reserves

What is the status of the reserve officers, who will comprise three-fourths of the Army on the day of mobilization? If we consult the National Defense Act we will find that the appointment of a reserve officer shall be for a period of five years, except that an appointment in force at the outbreak of war shall continue six months after its termination. We will also find that these reserve officers will include every grade from second lieutenant to general. Approximately 8,000 are assigned to units of the Regular Army.

Thus we see that the reserve officers will, by force of numbers constitute the bulk of the Army which will begin to mobilize on M-day. We, who will serve shoulder to shoulder with these officers, should know them; know what military training and knowledge they possess—their capabilities as well as their limitations.

Possibly the clearest realization of the strength and importance of the Reserve Corps, as well as its weaknesses, can be obtained by a presentation of the policies and regulations under which it operates. These are presented in the following discussion.

Purpose and Composition

The Officers' Reserve Corps is organized for the purpose of providing a reserve of officers available for military service when needed. This includes the furnishing of a certain number of noncombatant officers and units for the supply and administrative service necessary to the maintenance of the Regular Army and the National Guard in the first phases of the war; the completion of the commissioned strength of regular army units by the assignment of junior

officers; and the formation of the framework of the units supplementary to the Regular Army and National Guard which must be raised in a general mobilization of the nation.

Of the 100,000 reserve officers, 72 per cent are lieutenants, 16 per cent are captains and 12 per cent are of field grade. Of these 77,000 can be relied upon for immediate use, most of the remainder being inactive. Approximately 51,000 of the available officers are combatant and 26,000 noncombatant.

In its peace time functioning the Army of the United States is comparable to a large university, wherein the regular officers are the professors or instructors and the national guard and reserve components correspond to the student body, ranging from freshmen to those taking post-graduate work.

To assist in administration and training, the Reserve Corps is divided into some twenty sections. These correspond to the different arms and services of the Army. In addition it includes other sections, such as the Sanitary Corps Reserve, the Military Intelligence Reserve, and the Specialist Reserve. To the latter are assigned those officers required for certain phases of industrial mobilization.

Appointment

All persons appointed reserve officers are commissioned in the Army of the United States. Appointment is primarily based on the applicant's military qualifications, although he must also have at least a high school education or its equivalent, a good moral character, and be physically fit. Appointments may be made from the following classes of persons:—

1. World War officers and former regular army and reserve officers, excepting these who were separated from the Army as a result of their own misconduct. This class is appointed upon the approved recommendation of an examining board, in any section and to any grade not above the highest held by them when in the Army. Last year appointees of this class numbered only 700 out of 10,000, and in a few years the World War officers will have ceased to be a source of supply.

2. Approved graduates of the Reserve Officers' Training Corps, who are commissioned in the lowest grade without examination on the recommendation of the PMS&T at the college. About 6,000 officers are appointed in this manner every year, which is over half of the yearly increment. This class rep-

resents in general those who are best qualified, by education and natural endowments, to supply officer material.

3. Approved graduate flying cadets. Last year this included 200.

4. Graduates of the Citizens' Military Training Camps who have completed a certain specified amount of extension course work may be appointed in the lowest grade. During the past five years the number of appointments from this source varied from 36 to 140 in 10,000. The extension course work normally requires a year or two for completion.

5. Warrant officers and enlisted men of the Regular Army and Enlisted Reserve Corps, and persons not included in the preceding classes who served in the United States Army during the War, may be appointed to the lowest grade on the approved recommendation of an examining board. Last year this class supplied 2700 of the 10,000 appointees.

6. Specially qualified persons may be appointed in the Specialist Section on the approved recommendation of an examining board without limitation as to grade. These officers are industrial specialists required for industrial mobilization, and are generally appointed with the concurrence of the Assistant Secretary of War charged with industrial procurement.

7. A federally recognized officer of the active National Guard may, on his own application, be appointed in the Officers' Reserve Corps in the same grade and branch in which he holds appointment in the National Guard, and for the period that his National Guard appointment is effective. Also any warrant officer or enlisted man of the National Guard may be appointed in the lowest grade of the appropriate section of the Officers' Reserve Corps for a period of five years, provided such action has the approval of the National Guard authorities. These reserve officers who are also members of the National Guard cannot be assigned under their reserve commissions, but must be assigned under their national guard appointments. Therefore they are not included in this discussion, which deals primarily with reserve activities. There are approximately 12,000 of these officers, or about 93 per cent of all national guard officers.

Summarizing, the total number of officers now on the rolls, excluding those who are also national guard officers, may be classified as to source as follows:— Reserve Officers' Training Corps graduates, 35 per cent; World War officers, 31 per cent; World War enlisted men, 17 per cent, miscellaneous sources, 13 per cent; Citizens' Military Training Camp graduates, 1.6 per cent; regular army enlisted, 1.2 per cent; former regular army officers, 0.8 per cent; flying cadets, 0.3 per cent. This is the first year the R. O. T. C. graduates have outnumbered, the ex-World War officers, who are passing out of the Reserve Corps in increasing numbers.

Reappointment

Except for the "dual status" officers just mentioned, appointment in the Reserve Corps is for five

years, at the expiration of which time the officer must be reappointed. Formerly a reappointment in grade was generally tendered irrespective of the activity of the officer concerned. This resulted in a corps which was large on paper, but contained many officers who did nothing to increase their military knowledge or advance themselves in grade. In 1927 the regulations were changed so as to require that officers, in order to be reappointed with full privileges of assignment and promotion, must have during the preceding five year period obtained a Certificate of Capacity, (in which it is certified that the officer has demonstrated the necessary professional qualifications, usually by written examination, for the grade and section specified in the certificate) or has demonstrated his interest in military instruction by having a written record of at least 200 hours of extension course work, attendance at classes, or active duty training. The result of this policy has been that, while it has reduced the Reserve Corps in number, it has greatly increased its efficiency by retaining therein only those officers who took an active part in increasing their military knowledge.

"Inactive" Officers

Those reserve officers who have not demonstrated their interest in military affairs by having earned 200 credit hours during their five year appointment period are tendered reappointment without eligibility for assignment, promotion, or active duty training. Their records are kept in corps area headquarters. While they have failed to keep up with their military training, they have been classified and commissioned in an arm or service and have had some training in the past. They thus form a valuable initial replacement pool. Of the 100,000 reserve officers, approximately 20,000 belonged to this class last July. Until a five year period has elapsed since 1927 this class of officers will rapidly increase; thereafter it should stabilize, more or less.

Assignment

The basis for all assignments are the qualifications of the officer for the duty to be performed. There are three assignment groups of reserve officers— The General Assignment Group, which includes those assigned to War Department activities; the Branch assigned to a regular army unit, and this officer must an activity under the control of a chief of branch; and the Territorial Assignment Group, which includes all those assigned to corps areas. Ninety percent are assigned to this last group.

Regulations prescribe that in general the priority in assignment of the Territorial Assignment Group shall be:—

1. To active units of the Regular Army so as to bring them to war strength.
2. To inactive units of the Regular Army.
3. To units of the Organized Reserves.

Not more than one officer of field grade may be assigned to a Regular Army unit, and this officer must have had commissioned service during the World

War. Assignment to reserve units is in general on a territorial basis, the officer being assigned to the appropriate unit nearest his home.

Promotion

The promotion system in the Reserve is based on the principle that no person should be promoted to a higher grade until he has demonstrated that he is qualified to perform the duties thereof. But the manner of demonstrating these qualifications has been unsatisfactory in the past, and has undergone numerous revisions. Present regulations prescribe three requisites for promotion:—A minimum time in grade varying from three years for a second lieutenant to seven years for a lieutenant colonel; a vacancy must exist; and the officer must hold a Certificate of Capacity for the next higher grade.

Certificate of Capacity

A Certificate of Capacity is an instrument in writing executed under the direction of the Corps Area Commander, which certifies that the officer named therein is deemed to have the necessary professional qualifications to perform the duties and to assume the responsibilities of the grade and section specified in the certificate. To obtain a Certificate the officer must: (1) Demonstrate his knowledge qualifications by successfully passing the required examinations in from 5 to 8 subjects, depending on the grade, except that the completion of extension school subcourses will be accepted in lieu of the examination in the corresponding subjects; (2) demonstrate his ability to perform the duties of his grade before a board of officers; and (3), as an experience qualification, he must have completed at least one 14-day active duty training period with an efficiency rating of at least satisfactory.

Training

Training is either on an active duty status or an inactive duty status. In active duty training the officer receives the same pay and is subject to the same regulations as a regular officer. Inactive duty training is given on a non-pay basis and is normally performed while the officer is engaged in his civilian occupation. Active and inactive duty training together should provide mobilization, unit, and individual training.

Active duty training is either for a period of 14 days or, in special cases, for a longer period. The 14-day trainees attend a unit camp under the supervision of the Regular Army, conduct the C. M. T. Camps, or are attached to a unit or activity of the Regular Army. Specially selected officers may be placed on active duty for more than 14 days as additional members of the War Department General Staff, to attend the various special courses at the service schools, or for duty with tactical units of the Air Corps.

Appropriations provide for the active duty training of approximately 20,000 officers a year, which, if all individuals attended, would be an average of one in every three or four years. Actually some officers apply

every year, while others never do and consequently eventually gravitate to an inactive status upon reappointment. Credit hours for reappointment are granted at the rate of seven hours for each day of active duty.

The amount of active duty training is limited by the lack of funds appropriated for this purpose and the shortage of regular army units and personnel to conduct training. As now given, active duty training is considered to be both essential and practical. The number of officers who may benefit by it are being slightly increased by three expedients. One of these is by reducing the proportion of field officers, since the active duty pay of a field officer will be sufficient for the pay of two junior officers. Another expedient is the attachment of reserve officers to units of the National Guard while in camp. This is done with the concurrence of the national guard authorities, and promises to provide for the field training of over 2000 reserve officers each year. The third expedient is by having the reserve officers conduct the C. M. T. Camps, which is the nearest approach to training in the duties they would be required to perform in mobilization. As regards the effect of this latter policy on the C. M. T. C., Major R. E. Lee, General Staff Corps, has testified as follows before the House Sub-committee on Appropriations.

"When this idea was first promulgated we in the training section of the General Staff were very critical of it, because we thought it might injure the C. M. T. C. and that they would be used more or less as a chopping block for the reserves. A very careful estimate, based on a great many inspections that made the first year the plan was in effect, led to the belief that the efficiency of the C.M.T.C. boys was about 20 per cent below the efficiency of the training under straight regular army instructors. The Citizens' Military Training Camps Association was also rather afraid of it. We agreed, however, to try it out for another summer. At the end of this last summer not only had it apparently worked out very well, but the Military Training Camps Association were reconciled to experimenting further and instead of the training camps enrollment falling off, the number of applicants increased. We are not entirely committed to it yet but if at the end of three years it seems to work, I think it will be adopted permanently."

The test, as Major Lee further states, is whether the improved training of the reserve officers more than offsets the reduction in the perfection of the C. M. T. C. training, considering the entire national defense project as a whole.

Inactive duty training consists of extension courses, conferences, group schools, and other forms of instruction in military subjects. Of these the extension courses are by far the most important. During the school year 1929-30 more than 33,000 students were enrolled in the various army extension courses, of which 25,000 were Reserves. During that year 22,000 students completed 35,000 subcourses, representing a total of nearly 800,000 hours of work.

If this training were equally distributed among all

"active" reserve officers, it would average two weeks active duty training and something over thirty hours of inactive duty training every three years, which is just about sufficient to qualify the officer for reappointment on an active status. Actually the interest displayed by different officers varies considerably, some doing nothing while some officers have received the equivalent of a full month's active duty training each year (half without pay) and others have completed as much as 15 extension subscribers in less than a year totaling well over 200 hours of work.

Of the 80,000 "active" reserve officers, approximately 42,000 took some form of training during the last fiscal year, including 11,000 who had only active duty training, 11,000 who had active duty training as well as some form of inactive duty training, and 20,000 who completed extension courses or attended conferences but were not ordered to active duty. In addition, during the last ten years a total of 1,773 reserve officers have taken the special two to three months courses at the various service schools.

Conclusion

Some officers are inclined to be skeptical as to the value of the Reserve Corps. It is estimated that the military instruction received in the R. O. T. C. is equivalent to but approximately four month's continu-

ous training, as compared to the average period of one year's continuous military training required of candidates for reserve commissions in most foreign armies. Also the training received by the average reserve officer after his appointment is much less than the several months with the colors required of the reserves of other great nations. These facts must be recognized and provided for in our training schedules effective on mobilization. But on the credit side of the ledger we have a Reserve Corps of 100,000 partially trained officers, already commissioned, and the majority assigned to units, ready to step into their assigned places. Compare this with the conditions that existed in 1917. As to the duty of the Regular Army to the Reserve Corps, the Secretary of War, in his last Annual Report, states:—

"The Reserves form a very important part of our system of National Defense. Only our best regular officers should be detailed for duty with this component. The standards to be met by our reserve officers must be high, so that the system built up shall be thoroughly dependable, while the reserve officer himself must enjoy the complete confidence and respect of his brother officers is all components of the Army, and especially of the people of the community in which he lives."



Events Overseas

Lieut. Col. Herman Beukema, Professor, U. S. Military Academy

EUROPE'S frayed nerves were subjected in March and April to a succession of heavy shocks. Coming with little or no warning when eighteen months of the most severe depression in history had lowered morale everywhere, they have plunged the Continent into a cloud of black pessimism. The specter of a new general war, which has stalked Europe since 1918, gains substance as armament programs are stepped up and the recent hopes of progress toward real disarmament recede. In several dispatches appears the thought expressed by one correspondent that "the peace of Europe hangs by a hair."

However, in all the welter of doubt and fear no one has seen fit to declare just who is going to fight and why, where the money is to come from, what is to be gained. Moreover, the consensus of opinion discloses a Europe collapsing into chaos if such a war does materialize, with the greater specter of Bolshevism in its train. And finally, Russia, the single great power which at first glance would stand to gain most from such an outcome, actually foresees catastrophe for her experiment unless she can have some years of peace, and trade, to complete her economic reorganization.

The first of the shocks to European equilibrium may be labeled *Zollverein—Anschluss—Mittel Europa*. Without previous warning the German Foreign Office announced late in March the consummation of a Customs Pact with Austria which, in effect, would make an economic unit of those two countries. Anticipating the storm provoked by the announcement, the partners to the pact disclaimed any intent to create the political union—*Anschluss*—forbidden not only by the Treaties of Versailles and St. Germain, but more precisely barred by the protocols of an international convention signed by Austria, October 4, 1922, in return for an international loan of rehabilitation guaranteed jointly by Great Britain and France, Italy, and Czechoslovakia. Over that signature Austria agreed to maintain at all times her economic independence. Germany's bland declaration that the pact is but a step toward full consummation of Briand's proposed economic union, and the later indications that Hungary will join the *Zollverein* shortly, have only served to stiffen the resistance of the powers hostile to the arrangement. Unwillingly, Germany has finally consented to examination of the "legal aspects" of the pact by the League Council at its May meeting. Meanwhile, hard-pressed Rumania and Yugoslavia discover that their inclusion in the union would provide the sorely needed market for their surplus grain.

France has placed herself squarely athwart the road marked out by the former Central Powers. Almost in a day she sees the revival of that chimera of 1916—*Mittel Europa*. She dismisses the German avowals of an effort purely economic as mere subterfuge. This

to France, is *Anschluss*, and beyond it tomorrow, Germany would weld a solid block of powers from the Baltic to the Adriatic and the Aegean under her hegemony. Gone, then, status quo under the war treaties, gone France's preponderance in European affairs. Germany's declaration that she will insist on her right to rearm, unless the 1932 Disarmament Conference produces a wholesale scaling down of Europe's armed forces, adds color to French fears. Forced into a defensive role by the turn of events, France has retaliated by proposing anew her European Customs Union, with Germany and Austria barred. But at best she can count with certainty on but two allies in such a venture, Czechoslovakia and Poland. The situation promises a warm session for the League Council in May. Doubts appear as to the advisability of smoking out Germany's true aims and objectives in the matter. With the *Journal de Genève* making the interesting discovery that the pact is merely a German bogey thrust forward as a bargaining device to advance her intent to rearm, with France apprehensive of the collapse of the safeguards to her security, and with all Europe demanding some arrangement which will strike at the roots of economic depression, the Council faces a major problem.

A second bombshell exploded in the European camp when it was discovered that someone was guilty of a grievous blunder—or trick—in connection with the Franco-Italian naval agreement. Unknown to Italy, France had reserved the right to make substantial replacements of obsolescent vessels—too substantial for Italy's peace of mind. With that disclosure Italy's approach to parity by virtue of France's inclusion of many older vessels in her total tonnage, whose aggregate was materially larger than Italy's, disappeared. Great Britain's secretary of state for foreign affairs, who had acted as principal intermediary in securing adhesion of the two powers to the London Naval Agreement, appears as a scapegoat, in that he is charged with failure to inform Italy of France's intentions as to replacements. Today the entire question has reverted to the deadlock which dates back to the London parley.

The sudden collapse of monarchy in Spain, April 14, following the overwhelming victory of the Republicans in the elections of April 12, proved unexpected—in that it has been expected so long. The ejection of the House of Bourbon and the accession of a "Provisional Republican Government" is the least of this sum of troubles. What worries the neighbors of Spain, both near and far, is the ultimate outcome of that country's fourth effort within a century to find a political and social formula short of absolute monarchy or dictatorship which will unite the widely divergent elements of the nation in a common effort toward stability, both political and economic.

The British Empire

United Kingdom. The traditional dogged steadiness of the Briton in the face of adversity has rarely been illustrated so well as in the past two months. Moreover, the events of that period dispose of the fiction that that saving virtue is a monopoly of the "ruling classes." With Labor at the helm, the Government survived its long-standing, now acute, financial difficulties, made progress toward a sound solution of the Indian problem, and appeared as an effective, though somewhat bungling, stabilizer in a hectic Europe.

March was marked principally by efforts toward party solidification in the preparation for serious tests in April. In the fashionable St. George district of Westminster, ex-Premier Baldwin fought it out in a by-election with Lords Beaverbrook and Rothermere, Captain A. Duff Cooper, the Baldwin candidate, winning by a handsome majority. Baldwin had staked his leadership of the Conservatives on the issue, and winning, found it easy to effect a reconciliation with Beaverbrook. A questionable and unsuccessful effort of Lord Rothermere and Winston Churchill to discredit Baldwin on his Indian policy left that pair as leaders of the dwindling group of Conservatives in revolt. In the Labor group, the ousted Sir Oswald Mosley carried with him a following of six members. On the whole, the parties went to the test on April 16 with their ranks stiffened. Labor then defeated the vote of censure by a margin of 54 votes, the Liberals again furnishing the needed support. Obviously, the Conservatives prefer to synchronize their definite bid for power with an upturn in business—and that still lies in the future.

Recognition of disturbed conditions in Europe is seen in the clear-cut announcement of the Secretary of State for War, Mr. Thomas Shaw, that Great Britain will no longer take the lead in disarmament by cutting down her own defenses. Present strength of the army, he declared, must be maintained at all costs. The pronouncement is a far cry from the Labor platform of 1929, a fair measure of Right Wing Labor's development under the spur of responsibility. Budget estimates for the next year show a small reduction in both military and naval expenditures, and a moderate increase for the Royal Air Force, chiefly for the army contingent. Reductions are largely accounted for by the lowered cost of supplies.

The Dominions. Deliberate default by New South Wales on April 1, when interest payments on its bonds aggregating \$3,500,000 fell due in London, provoked a financial crisis which for a few days threatened Australia's credit abroad. Prompt action by the Commonwealth government in providing the needed funds, as well as other millions due some days later, removed the threat, at the same time bringing to head a political crisis. Briefly, Premier Lang, an embittered (though moderately wealthy) Socialist, is leader in a movement for wholesale repudiation of all Australian obligations. His program entails "nationalization" of all property. Ample funds were available to the credit of his State in both Australia and London when the interest fell due. No question of bankruptcy existed. He was

simply acting true to the tenets of all practical Socialists in meeting debts with the device of repudiation.

Faced with legal action by the Commonwealth to collect from New South Wales the funds advanced in London, bitterly condemned by the premiers of the other States, and threatened with a separatist movement in his own, Lang continued to trumpet about the Continent in his campaign to discredit the Scullin government. His mad course finally brought about a run on the State Savings Bank, a \$400,000,000 institution, closing its doors.

Meanwhile the Commonwealth senate blocked the Scullin program of financial inflation when it voted to reject the government bill authorizing the issue of \$90,000,000 for agrarian and unemployed relief. As a result, a general election is probable, but not before July 1. The electorate will then apparently have three choices open. The Nationalist Party, led by T. A. Lyons, stands for strict honesty in finance. Premier Scullin heads the inflationists, with Lang the leader of the radical repudiation element.

Foreign Relations. Recent weeks have produced a distinct sense of strain in Franco-British relations. The impossibility of reconciling their separate aims in international matters has resulted in the wrecking of three important British projects—Franco-Italian adhesion to the London Naval Treaty, a European tariff truce, and a four-power conference of foreign ministers in London. France's part in blocking Mr. Henderson's efforts is clear. Her grievance arises not only from Britain's refusal to parallel her strong line in condemning the Austro-German Customs Pact, but to a greater extent the British invitation to Dr. Bruening and Dr. Curtius for private conference in London on these matters. Whether France fears or senses a divergence of the French and British orbits in European affairs, and is taking steps in reprisal, will appear at Geneva in the coming weeks.

India. Communal riots at Cawnpore, the bloodiest incident since the Sepoy rebellion, furnish increasing proof that Hindu and Moslem cannot live peaceably together except under the control of foreign machine guns. In this instance, the Hindus were the aggressors. The affair has failed to check the preparations for the third Round Table Conference, scheduled for this Fall. Mahatma Gandhi succeeded beyond his hopes in securing approval of the All India National Congress, March 30, to his truce with Lord Irwin, principally because of his declaration that whatever form of government eventuates from the Round Table, it will be but a step toward complete independence. Indianization of the army proceeds at all too slow a pace to suit the radical theorists. A new obstacle appears in the native soldier's preference for the British officer.—R. B. RANSOM, *Captain, Infantry.*

Western Europe

League of Nations. The Austro-German Customs Pact has precipitated the most severe test of the vitality and usefulness of the League of Nations since the birth of that body. Moderately successful so far in settling and preventing the quarrels of petty states,

the League now faces a major problem, affecting every power in Europe. Prompt decision is not looked for; in fact, the Council is expected to call on the World Court for an advisory opinion before taking definite action.

The agenda for the May meeting include further preparation for the 1932 Disarmament Conference, now thrown into the background by the Customs Pact snarl. Of immediate interest to the United States are indications that steps will be taken in that field shortly to limit the tonnage of battleships to 23,000 tons, or thereabout. France, Italy, and Japan find their foreign possessions comfortably within the steaming radius of such a vessel. Britain, with her chains of naval bases, is in a similar position. The situation leaves the United States as the sole defender of the 35,000 ton battleship.

France. The rôle of scapegoat falls once more to Foreign Minister Aristide Briand. Assailed in the nationalist press for his German policy of rapprochement which, it is charged, has led directly to the Austro-German Pact, he refuses to give comfort to his enemies at home by resigning. The government continues to make moderate loans to the members of the Little Entente, hoping to strengthen the bonds which hold them to France. But the real difficulty finds expression in the Yugoslav press: "We cannot be helped much by small loans, while being bound to arbitrary borders. What is more important is the chance to sell our products."

Further bolstering of her allies appears in France's undertaking to complete the rail lines from the coal area of Upper Silesia to Poland's artificial seaport, Gdynia. France is advancing the money and in return gets joint control with Poland over the road. That action raises a new bulwark against the treaty revision desired by Germany to restore to her the Polish Corridor.

Spain. "A republic in Spain would become such a hodge-podge of confusion that a king sooner or later would be welcomed as a savior." It is possible that the ex-king Alphonso XIII had in mind those words of Unamuno when he prepared his statement of April 13 to the Republican leaders, declaring "I do not renounce any of my rights. They are the accumulated store of history ***." Those are not the words of abdication. Yielding to the force of events when the elections of April 12 produced an overwhelming republican majority (in the cities), he stepped aside to let a "Provisional Republican Government" take charge. He recalls the three preceding abortive attempts within a century to establish a republic in Spain. He bears in mind the make-up of the Spanish nation—small aristocratic top, broad bottom marked by a poverty-stricken and land-hungry peasantry, an equally impoverished proletariat in the cities, a small and voiceless bourgeoisie, a turbulent and dangerous admixture of students and intellectuals. He does not believe that this is the stuff of which republics are built, but instead that it calls for a dictator's rule. Finally, he realizes that the anti-monarchical vote is

merely an expression of the cities' sentiments. The villages are still bound to church and king. And he can foresee for the Republic just such a failure as once placed his father on the Spanish throne. Why should not history repeat itself in this instance?

Portugal. Revolt against President Carmona's undisguised dictatorship, breaking out late in March, is still flourishing, more than a month later. At Funchal, port of the Madeira Islands, rebel troops await the advance of a mixed government force. At Lisbon, the police dispersed a May Day mob with machine gun fire, whereupon the entire cabinet, apprehensive of more serious trouble, sought asylum in the barracks of the 3d Artillery.—DONALD A. FAY, *First Lieutenant, Infantry.*

Central Europe

Germany. Has Hitlerism shot its bolt? Public opinion in Germany and elsewhere examines the results of the last session of the Reichstag and scans the local election returns as they appear, for an answer to the question. Obviously, the internal dissension within the ranks of the National Socialists, as brought to a head by Hitler's expulsion from the party of Walter Stinnes, head of the "storm troops" of northern Germany, has proved a setback to Fascist plans. Hitler, trying to carry water on both shoulders to hold in line his revolutionary extremists while he bids for support of adventurous elements allied to the moderate parties, meets varying success. In some sections, municipal and state elections show a steady swing away from Fascism's high tide of last July; in others, the party records heavy advances. On the whole, it is not clear whether the Fascist tactics in bolting the Reichstag in February, and in subsequent attacks against religion throughout the country, have permanently crippled their cause. The vigorous reprisals of the Church against both that party and the Communists have damaged the Hitler program, especially in Bavaria, the birthplace of Fascism.

Having succeeded beyond his hopes in getting Germany through a trying winter, President von Hindenburg signalized the end of the Reichstag session by invoking Article 48 of the Weimar Constitution to establish temporary dictatorship again. Under his decree the "fundamental rights" of civil liberty are suspended for an indefinite period. In short, freedom of the press, speech, and assembly are left in each instance to the discretion of the police. The measure was aimed at both the Nazis (Fascists) and the Communists, whose constant fighting was marked by a total of 300 killed and many more hundreds wounded within a year—gang warfare which had begun to interfere seriously with business. From Hitler, who had promised with gusto a dictatorship in which "hundreds of heads will fall," comes an outburst which savors of a whine, demanding the resignation of "so ruthless a dictator as Hindenburg." The strongest reliance of the President in the past hectic year has been Heinrich Brüning. A year ago an unknown today the "Iron Chancellor," he has handled Reich-

stag and state with the skill and courage of a finished statesman. Staking everything on securing a working agreement between the Social Democrats and the Center, he prevailed on the Reichstag to pass the measures most vital to Germany's immediate interests. The nation's finances have been placed on a sound basis, agricultural relief is established, and national defense is secured. In the latter category is found the initial appropriation for the construction of the Er-satz Lothringen, Germany's second "pocket battle-ship."

Italy. The apparent break-up in the Franco-Italian negotiations over naval restriction, referred to above, finds Italy and Great Britain in substantial accord, and France in the uncomfortable, if adamant, stand of safeguarding her needs regardless of the effect on her rivals. In spite of appearances, the issue remains alive, with deadlock no final bar to later compromise. —OTTO L. NELSON, *1st Lt., Infantry.*

Eastern Europe

Russia. Is *pyatiletka* succeeding? Adept in persuading their half-starved millions and their sympathizers abroad as to present and future success of the Five Year Plan, Stalin and his followers find it impossible to conceal the dangerous rifts in their scheme from the eyes of the impartial observer. Transportation, according to the state-controlled *Pravda*, falls 25 per cent behind the expected program; coal, 43 per cent, with a precipitous drop in output since January 1. The difficulty lies in the refusal of the workers to accept the intolerable working conditions in the mines. Worse news still in steel. The most signal failure, perhaps, occurred at the Stalingrad tractor plant, scheduled to produce eventually 150,000 tractors per year. Output fell to a few hundred, with 80 per cent of all castings going to the scrap heap. From Germany comes the news that Moscow, having dumped everything saleable on a depressed world market, was unable to meet her payments abroad without shipping a considerable part of an already inadequate gold reserve. The German Reichsbank was the immediate beneficiary of those shipments. At that juncture Moscow is relieved to find Berlin and Rome willing to advance longer credits than those hitherto granted. And now Russia reverses herself in the matter of dumping wheat. Her exports of 110,000,000 bushels in the 1930-31 crop year has disposed of her surplus, but at a price which must spell heavy loss to that country. Stalin, with the figures before him, becomes interested in crop control to restore production to a profitable basis.

General adoption of a piece-work wage system in agriculture as well as industry marks one more acknowledgment by Moscow that capitalism's tools are indispensable in the working out of communistic theories. With it is installed *khosraschiot* (economic accounting), under which each factory, farm, and economic unit becomes an "individual." And each is ordered to pay its own way in the future.

Recalling the 40-year preparation of Germany for "The Day," is an order requiring the "militarization

of literature." Everything in print, from primary reader to lyric poetry, must sing the praises of the Red army and preach the campaign against the capitalist countries. Other developments of note include a new drive against the Kulaks; increased collectivization of farms, now reported to have passed a mark of 50 per cent of all arable land; extension of foreign boycotts against Russian goods, and Russia's reprisals as shown above by doing her marketing elsewhere (Germany and Italy); and the recall to influence of Rykov, the leader of the Right Opposition who was ousted last fall. It is a chastened Rykov, however, who rejoins the Central Executive Committee.

Of chief importance is the fact that Moscow has weathered its heaviest test to date during the past winter, and the greater fact that peasant and proletariat, far from seeing improvement in their condition as the millenium year (1932) approaches, sense the growing poverty of individual and state. An even greater test still lies ahead of Moscow.—GEORGE M. BADGER, *First Lieutenant, C. A. C.*

The Balkans and the Near East

Rumania. Early in April a demonstration in the Russian Chamber of Deputies against Minister of Industry Maneilescu, a favorite of King Carol, led to the fall of the Peasant party cabinet of Premier Mironescu. From England, Carol summoned Minister Titulescu to form a new cabinet. Observers felt that opposing parties would prevent the formation of a cabinet, that the ruler has knowingly given an impossible task to Titulescu, upon whose failure, he, Carol, could proclaim a dictatorship.

Titulescu, however, managed to reconcile the warring parliamentary factions and offered a strong cabinet for the King's approval. But the monarch, reported to have been urged on by his paramour, Magda Lupescu, demanded the inclusion of several favorites in the ministry. Titulescu resigned.

Carol's dictatorship dream, fostered by Alexander's apparent success in Yugoslavia, was disturbed by Alphonso's departure from one of the last absolute strongholds. At any rate, he called upon his ex-tutor Jorga to form a cabinet and the new premier dissolved the extraordinary session of parliament within a few hours after it had first met on April 30. Wild disorder and passionate protests greeted this coup, the deputies of the Peasant party shouting "Down with the Dictator." What the future holds depends to a great extent upon the elections to be held in June.

Turkey. Kemal has taken steps to strengthen the government's hold upon the younger generation by the commandeering and reorganization of the Turkish Hearths Society. The Turkish president, using Mussolini's junior Fascists as a model, will gather into the centers of the organization the nation's youth for patriotic education.

It may be of interest to note that, in line with the recent treaties of the Western European powers, Turkey and Russia have signed a naval accord limiting naval armaments in the Black Sea.—D. H. GALLOWAY, *First Lieutenant, Cavalry.*

SPORTS

National Capital Horse Show

COMPETING against the usual fine entries at the National Capital Horse Show, held at Bradley Farms, May 13 to 16, the Fort Myer Horse Show Team made an excellent showing with its string of jumpers.

Organized by Colonel Harry N. Cootes, 3rd Cavalry, Post Commander, and led by Major A. D. Surles, 3rd Cavalry, the team consists of 1st Lieut. W. A. Holbrook, Jr., 1st Lieut. C. H. Noble, 1st Lieut. W. A. Bugher, 1st Lieut. Gordon Rogers, and 1st Lieut. C. W. Bennett, all of the 3rd Cavalry. Training was started early in the year, under Major C. P. George, 16th Field Artillery for a series of shows which in addition to the National Capital, include those at Worthington Valley and Devon.

First score was made at the National Capital by Lieut. Noble riding *Flash* in the Modified Olympic Course for fourth place. In the Handicap Jump, Lieut. Bennett won third and fourth ribbons with *Miss Clebourne* and *Sir Knight*. *Miss Clebourne* also placed third in the touch and out. *Peace Girl*, shown by Lieut. Rogers, brought the first blue in winning the class for mounts suitable to become polo ponies and his *Scandal* placed second in the Polo Pony class. *By Jingo*, ridden by Colonel Cootes, won first place among the officers' chargers. *Temptation*, ridden by Lieut. Bugher, placed second in the Handy Hunter class.

The event for troopers' mounts was won by Sergeant Mylor, Troop E, on *Grace*; *Queenie* shown by Private Miller, Machine Gun Troop, second. *Sailor*, shown by Private Reven, Headquarters Troop, third; *Daisy*, shown by Private Sinsel, Machine Gun Troop, fourth.

Major George S. Patton's hunt team, which included two of the Fort Myer riders, was fourth in its event with a fine performance. In the Triple Bar Jump, the feature event of the closing day, *Miss Clebourne*, ridden by Lieut. Bennett, and *Temptation*, ridden by Lieut. Bugher, took first and second places over twenty-two competitors.

Troop F, 3rd Cavalry, commanded by Capt. Hugh J. Fitzgerald, will give an exhibition ride at the Worthington Valley Show, where the team is next scheduled to compete.

In addition to the 3d Cavalry entries from Fort Myer, the Office of the Chief of Cavalry was well represented at the National Capital Horse Show. General Henry was unable to show his horses due to his absence from the city in connection with the Cavalry Division Maneuvers. Major George S. Patton, Jr. accounted for 2 Blue, 2 Red, 3 Yellow and 4 White ribbons. Major W. M. Grimes won one Blue and one Red.

Hunter Trials

Major W. M. Grimes, Cavalry

HUNTER trials are becoming more and more popular. A great many of the eastern hunts conducted trials at the end of the past season. These trials are conducted much after the fashion of our old point-to-point events on the Cavalry School graduation program.

Generally speaking, the object of a hunter trial is a comparative test to determine the relative merits of the various hunters that have regularly followed the hounds during the season. The course is usually from two to three miles in length, approximating as nearly as possible conditions encountered in the hunting field, such as fences, terrain, and galloping ground. As to the conduct of the trials, entries as a rule are divided into two main classes, depending on the number of seasons a horse has hunted. Horses that have just completed their first season are entered in the class for green hunters; horses that have hunted more than one season enter the qualified class. Each class is run separately. Contestants usually start from three



The First Army Team to Win Indoor Polo Championship in New York Athletic Club Event. Left to right: Lt. A. George, Cav., Lt. J. F. Haskell, Inf., Lt. M. McD. Jones, Cav.

to five minutes apart; as a rule there is a time limit with an overtime penalty.

A word as to judging; hunter trial standards are different from showing standards. Hunter trials are judged on hunting field requisites and requirements. Horses are usually judged on their cross-country galloping ability (rate, way of going); fencing performance (form and style); handiness, manners and condition at completion of trial. There may or may not be a percentage for conformation. Where conformation is considered, as a rule it counts little—about 10%.

Jacks, curbs, splints and capped hocks, etc., provided they do not impair the hunter's ability to perform, are not seriously considered. "Hunting sound" is the judge's yard stick.

Contestants are required to complete the distance, usually two or three miles, in from ten to fifteen minutes, or at a 12 mile hunting gallop. There is a penalty for overtime; one point for each five seconds in excess of ten or fifteen minutes. At the finish, horses are carefully examined for condition, wind, etc. During the time each contestant is under way, judges are observing horses for ability to gallop cross country and fence; manners likewise are considered.

The number and the size of jumps vary. The height varies from approximately four feet six to three feet; the average height is about three feet six. Three refusals usually constitute a disqualification; as well as fall of rider or horse, or both.

Officials usually consist of three principal judges, patrol judges at the gates and the various fences, and the timers. The three principal judges score each contestant as outlined above for way of going, fencing, manners and condition at completion of the course; the patrol judges at the several fences record the scores at their fences. These are later collected and turned over to the three principal judges who consider them in making awards.

A great many hunting people deery the hunter classes one sees on the horse show circuit, claiming there is too much artificiality about the courses and the horses. Hunter trials eliminate a great deal of this criticism; the horses are required to gallop over and fence country that they hunt; and furthermore the trials are usually limited to horses that regularly hunt—in other words working hunters as opposed to show ring hunters. There is no doubt that the best test of

a hunter is the hunting field where the horse is subjected to the scurry and excitement of other horses. However, the next best substitute is the hunter trial.

Dates of Olympic Equestrian Events

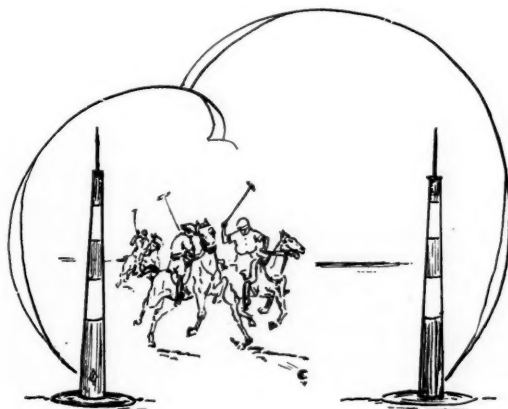
The schedule of equestrian events in connection with the 1932 Olympics has been announced as follows:

Place	Date	Event
Olympic Stadium	Aug. 10th, Wed. (12th Day)	A. M. Individual Dressage P. M. Competition
Olympic Stadium Village	Aug. 11th, Thurs. (13th Day)	A. M. Three-Day Event-Schooling Phase
Olympic Stadium	Aug. 13th, Sat. (15th Day)	P. M. 1. Presentation of winner of Individual Dressage held on August 10th. 2. Three-Day Event (Jumping Phase)
Olympic Stadium	Aug. 14th, Sun. (16th Day)	P. M. Prix des Nations

New Regulations for Inter-Circuit Polo

THE United States Polo Association has announced that following the indicated wishes of the majority of the member clubs through their answers to a questionnaire sent out in February, it has been decided to play the Inter-Circuit tournament for 1931 on the following basis:

- a. Games will consist of eight periods instead of six.
 - b. The tournament will be played in two divisions.
- The location and dates will be announced later.



Professional Notes and Discussion

Inactive Duty Training

By Captain Clyde D. Keith, 319th Cavalry

FOR many years it has been apparent that some means of training for members of the Officers' Reserve Corps other than the regularly provided fourteen-day training periods conducted by the government was essential. Considerable time and thought has been given to this subject and the following outline of the way in which a Detroit group has solved the question of Inactive Duty Training is given for the information of other localities or groups.

In the spring of 1930 seven members of the 319th Cavalry and 465th Armored Car Squadron, which are units of the 65th Cavalry Division allocated to Michigan, decided to establish a training center for Inactive Duty Training.

For the purpose of accomplishing this mission, a tract of land containing 110 acres of ground and an old farm house was leased. Adjacent to the property was a riding academy where members of the organization could secure mounts suitable for the purpose desired. A special rate for the hire of mounts was obtained from the proprietor of the riding academy. This placed the facilities within reach of junior officers.

The next step was the organization of the group of officers initiating the movement, for the purpose of administration and development. The result was the formation of The Cavalry Club of Michigan, with the purpose of developing horsemastership and the study of military science and tactics. This also provided a social meeting place for all those interested in the purpose above described.

Schedules were prepared by the regimental staff of the 319th Cavalry and a program of training was conducted every Saturday afternoon, instructors being drawn from the officer personnel of the regiment itself.

As the training progressed the club increased its membership until at the end of six months there was a membership of over fifty officers. Social gatherings were held and as a result, the ladies of the officers became interested in the development of the club. During the summer and fall numerous afternoon parties were enjoyed, these being conducted during the week, as on Saturday the entire club was devoted to military subjects covered by the schedule.

In the month of July the regiment was ordered to active duty at Fort Sheridan where the value of the training conducted at the club was quite evident.

After the active duty period the training at the club was largely devoted to cross country riding and jumping. Mixed rides of the officers and their ladies were conducted one evening each week after which a supper was served to the club. The rides turned out an aver-

age of twenty officers on each occasion. The outstanding result of this contact among officers was the development of an *esprit* never before attained.

By this time numerous officers from other branches of the service had been attracted to the club, the membership having grown to approximately seventy officers. The facilities, which up to that time had been ample, were deemed inadequate to handle the increased membership. It was therefore decided to negotiate a lease on an adjoining one-hundred-sixty acres of ground on which was located a twelve room brick clubhouse and stable accommodation for thirty mounts.

The constitution of the club was amended to extend membership to all Reserve Officers, Regular Army Officers and National Guard Officers holding reserve commissions. The effect of this change was to give added impetus to the growth of the club.

At the present time a problem embracing the various combatant branches of the service is being prepared for spring and summer training. Exercises will be conducted under supervision of the military affairs committee of the club on Saturday afternoons. Organizations participating will be the following: 339th Infantry, 328th Field Artillery, 310th Engineers, 319th Cavalry, and the 465th Armored Car Squadron. Credit for attendance will be given to those present.

The club is now well established in its new quarters with a competent caretaker in charge. The stables have been remodeled and fourteen mounts provided for use at this time. As additional horses are required they will be added. An active polo group has erected a training cage and will develop a team which will further add to the attractiveness of the club. A horse show ring will be constructed in the spring containing appropriate jumps and obstacles.

It should be borne in mind that the principle object of the club is to give training to all officers and more especially to the junior officers. For this reason the cost of maintaining the club has been held to a minimum.

The initial cost of membership was five dollars. The monthly dues of five dollars entitled each member to ride four hours per month or an average of one hour each Saturday. When the club moved into its new quarters the initiation fee was raised to ten dollars with monthly dues of two dollars. Members buy their riding tickets as they require them, as during the winter months there is less opportunity for mounted work.

What has been accomplished here in Detroit can be carried on in any locality where there is an interested group of officers. A group which is really willing to do the work of organizing such a club and carry on, no matter how discouraging it may seem at times, will be successful.

Notes From The Cavalry Board

New Cavalry Air Cooled Machine Gun

THE Cavalry Board has just completed its study, and submitted to the Chief of Cavalry its report on proposed specifications for a new light machine gun for Cavalry. The object is to have this gun take the place of the present machine rifle, which has been temporarily superseded by the air cooled tank machine gun with certain modifications.

It is hoped, in due time, to produce this new light machine gun, especially designed for cavalry use, capable of being quickly put into and taken out of pack, transported a reasonable distance by a single man, dismounted, sustaining its fire at a maximum rate of 50 rounds per minute for thirty minutes, and of a maximum weight of 30 pounds including mount.

The Ordnance Department is at present issuing the tank machine gun, air cooled, modified as follows, to replace, temporarily, the machine rifle: The rear sight is the Browning machine rifle sight, placed on the rear of the cover latch with a peep 1/10" in diameter; the front sight adjusted to a correct elevation at a range setting of 600 yards. Instead of the shoulder stock, a pistol grip is provided, which as soon as production can be accomplished will be replaced by the double spade grip. The tripod legs are provided with shoes to increase the stability of the mount, which is attached to the gun itself. The gun, spare parts, and 950 rounds of ammunition are carried on one horse, it being possible to maintain a balance of this pack load until an excess of 300 rounds of ammunition have been fired.

Semi-Automatic Arms

The Board has on hand 8 Garand semi-automatic rifles, caliber .276, 4 Pederson semi-automatic carbines, and 2 Pederson semi-automatic rifles—both caliber .276—for service test. Tests of former models of these weapons have been conducted; of the Garand in 1927, and of the Pederson in 1928.

These new guns represent what appears to be tremendous advances in the field of semi-automatic arms, the weight, size, and length all being such as to give great promise to these guns as future cavalry weapons.

Among some of the very excellent features are the 10 cartridge clip, which is automatically ejected when empty, the new design of rear sight, and most important of all, the fact that the weapon automatically loads itself, and is constantly ready for action so long as there is ammunition in the magazine.

Field tests are to be started in the very near future.

.50 Caliber Machine Gun

A number of service tests have been conducted to determine the suitability for packing of the .50 caliber machine gun T-1, and the expediency of adopting it as a cavalry anti-tank weapon. Because of its very

heavy weight and size much difficulty has been encountered in adjusting this gun and mount to packs not exceeding the maximum weight authorized for cavalry pack loads. There is now, however, in process of evolution a scheme for packing this gun that gives promise of satisfactory results. Recently the gun, packed as a top load, was tested on a march of 100 miles accomplished in 23 hours, and the results were very promising. It is believed that very shortly it will be possible to recommend a satisfactory solution of this problem pending the production of the new cavalry .50 caliber machine gun, specifications for which are now in process of preparation.

Whiting Saddle Pack

Since the World War one of the subjects of primary consideration has been the lightening of the cavalry horse's load. Approximately 10 pounds have been taken off the enlisted man's pack since 1920, and further reductions are in contemplation. It is believed that one of the most promising moves in this direction, and one which at the same time will add more comfort to the lot of the enlisted man who rides the McClellan saddle, is the Whiting saddle pack, the details of which are now being perfected. This new arrangement of the enlisted man's equipment, and the changed method of packing his saddle will result in a considerable reduction in, and a better distribution of, weight. All the changes considered can be made by the troop saddler at negligible expense.

It is contemplated that the saddle pockets will be reduced in size and bulk, that they will be carried on the pommel instead of on the cantle. The rifle and saber will be removed to the off and near cantle respectively, thereby enabling the rider to use his legs on his horse, and removing these very uncomfortable encumbrances from under the legs. The two outside mortices on the cantle of the saddle are to be moved nearer to the side bars, thus enabling the soldier to affix his cantle roll more firmly and permit it to ride more snugly. The rifle scabbard is to be reformed permitting a snugger fit for the rifle and at the same time greater ease in its insertion and withdrawal. A new design of saber carrier is contemplated which will also accommodate fitted shoes for the horse. All auxiliary straps are to be of the same size and length, such as coat straps, saber knot, etc., the coat straps being materially shortened, thus eliminating the necessity for the two or three turns around the roll, raincoat, etc. The girth straps are also attached to the saddle by means of an iron square thus eliminating the canvas flap which now rips in a short time, requiring resewing. The same model stirrup strap as that now in use on the training and officers' field saddles is to be recommended as is also a steel or leather covered wooded, unhooded stirrup. The grain bag, feed bag, and raincoat are to be carried as now authorized.

CURRENT TOPICS

First Cavalry Division Maneuvers

THE annual maneuvers of the 1st Cavalry Division are being held, May 19th to June 2d, in a new maneuver area. The area used will include the Hueco and Sacramento Mountains on the east and extend to the Franklin and Organ Mountains sixty miles to the west. The troops of the division will encounter in this area the most rugged country possible to obtain. It varies from the typical desert of sand covered by mesquite and greasewood, where water is scarce and the going difficult, to the mountains 10,000 feet high where maneuver is practically impossible for wheeled vehicles and recourse must be had to packing on animals all articles transported.

It is believed that this area presents difficulties which have never before been encountered by our Cavalry in maneuvers. These maneuvers will test, practically, many questions of tactics which have arisen as a result of the rapid advancement of science applicable to military operation. Among such questions are: the proper employment of Cavalry in mountain warfare; the ability of Cavalry to maintain communications with airplanes while engaged in traversing such rough country, and also to so maneuver as to prevent being discovered by hostile airplanes; the use of signal communications; the ability of Artillery to keep up with and support Cavalry, both in the sandy desert and in the high mountains; the ability of the armored cars to operate over this difficult area; and the powers and limitations of modern inventions such as the radio telegraph and radio telephone, airplanes, weapons, and motor transportation.

These maneuvers are designed to bring out many problems of this kind which have been absent in former maneuvers.

Modern articles of equipment, now the subject of experiment under the direction of the 1st Cavalry Division Board, will be tested. Among these are the following:

The 37mm. gun with the new Heavey mount, all carried in pack; medical equipment carried in squadron packs; water purification equipment; signal equipment for armored cars; pack cooking outfits; various methods of packing water and other supplies on animals; sending signals by rifle grenades; laying of wire from automobiles; new radio sets, including one which will permit a commander to communicate with the mounted man while he is moving at the walk, trot or gallop.

These maneuvers will be "free" to a great extent, that is the troops involved will operate continuously day and night with only brief periods of intermission to allow a certain amount of control. In other words, the troops will simulate conditions of real war as nearly as possible. This introduces the question of supply of all articles needed by the division in war, such as food,

forage, water and ammunition, and the necessity of all commanders to know how to conserve the physical strength of men and animals for the final punch to assure success in the field of battle.

The new cavalry light machine gun, intended to replace the present machine rifles in rifle troops, will be used in maneuvers for the first time, and will give regiments a greatly increased fire power. This machine gun is air cooled and has been recently adopted. Each cavalry regiment will have, when these machine guns are received, twenty-four light machine guns and ten heavy water cooled machine guns. In these maneuvers for the first time in the history of the American Army each rifle troop will be able to furnish its own machine gun support.

These maneuvers are drawn up so as to employ, under modern conditions of warfare, all units participating. The tactical problems involved will illustrate the following: Employment of the 1st Cavalry Division on a mission requiring high mobility; constant reconnaissance and the evaluation and prompt transmission of information; night operation; mountain fighting; use of Air Corps units to assist the Cavalry in operations over open and mountainous terrain, both in daylight and in darkness; practical use of the various services of the division, such as Quartermaster, Engineer, Ordnance, Medical, Signal and Chemical Warfare.

26th Cavalry in the 1931 Maneuvers

BASED on the assumption that an imaginary enemy would attempt a landing on the beach in the Lingayen Gulf area within 36 hours from first information received, the Philippine Division was rushed to the scene of action by motor truck, motor bus, trains and animals.

The 26th Cavalry came in for its share of rushing and as a consequence all the machine gun platoons of the rifle troops, and the machine gun troop with Battery E, 24th F. A. attached, were loaded in motor trucks on the night of January 5-6 and hurried to the scene of action where they arrived some 12 hours later, and where they took over the left of the Division sector.

The animal elements of the regiment left Fort Stotsenburg on the morning of January 3rd, moving through successive halts for the night at Bamban, Tarlac, Santa Ignacia, Bayambang to San Carlos where they took position covering the left of the division.

While at San Carlos, the regiment performed various reconnaissance missions, chief among which Troop E crossed the Agno River to Mangatarem in a road and river reconnaissance, and Troop A marched to Laois, crossing the Agno River and several difficult, deep, water filled ditches between San Carlos and Aguilar.

On January 11th a night withdrawal was made and the 26th Cavalry machine gun elements with Battery E, 24th Field Artillery, were conveyed by motor truck and bull cart through Binnmaley to the north bank of the Calmay River. When the trucks were released, the equipment ferried across the river and the personnel marched over on a narrow, temporary foot bridge to the south side. Here the pack horses and mounts for the personnel were met, the guns packed, the men mounted and marched six miles to San Carlos.

The crossing was well planned and well carried out and the movement, made in pitch dark was as smooth as though it were made in broad daylight. Considering the fact that the road, upon which the animals met the ferry, was narrow and lined on each side with impassable marshes, it is considered a remarkable showing to have made the crossing in two hours with such an absolute lack of confusion.

The division commander, Major General Paul B. Malone, who witnessed the crossing, was highly pleased with the efficiency shown by all concerned and stated that "he did not see how it could possibly be improved."

The regiment being thus assembled, its mission of covering the division left continued and upon the withdrawal of the division through several successive delaying positions, it remained on the left flank about a day's march in rear of the division.

On the night of January 15-16, the 26th Cavalry passed from control of the division and it returned to Fort Stotsenburg in leisurely marches, arriving home on January 18, 1931.

It is interesting to note that this is the last maneuver in which Colonel Fleming will participate as a Regimental Commander as he returns to the U. S. in October, 1931, and retires for age in June, 1932.

British Maneuvers, Winter 1931

THE Royal Tank Corps Journal for April, 1931, gives an interesting account of the Aldershot Command Winter Exercise, 1931. The exercise took the form of a two sided maneuver involving two detachments approximately equal in Infantry and Artillery, but differing fundamentally in mobile troops. "Westland" comprised a medium armored brigade and a cavalry brigade; "Eastland" had a light armored brigade and a cavalry division. The "Eastland" light armored brigade was organized as laid down in the "Mechanized and Armored Formations" handbook, 1929 (three light tank battalions, close support battery, anti-aircraft battery); the "Westland" medium armored brigade as follows: Headquarters; Signal Section; one light tank battalion (three companies of three sections of five light tanks); three medium tank battalions (each consisting of: H. Q.; one close support section of three close support tanks; three companies, each of one section of five medium tanks, and one section of seven light tanks).

According to the author, the superior mobility of the "Eastland" force was of distinct advantage in placing it in position to accomplish its mission. The con-

ditions of the problem required the opposing sides to seize and hold the same area, equidistant from their starting points. Both sides dispatched their armored forces at maximum speed ahead of their other troops to gain and hold the ground until the arrival of the less mobile forces. To quote the article:

"At the conclusion of the exercise the G. O. C.-in-C. Aldershot Command (Sir David Campbell) gave a brief summary of his views on the subject of handling of mobile troops—which term he used to embrace both Cavalry and A. F. V.'s.

"In the first place he pointed out that Cavalry and A. F. V.'s are complementary one to another. Cavalry he considered immeasurably superior for reconnaissance; A. F. V.'s have the offensive power. It followed that both types of mobile troops should be used together.

"He agreed that there must be exceptions to this general rule, but, in his opinion, a commander would only be justified in using A. F. V.'s alone in circumstances when time was of vital importance, the distance involved too great for Cavalry, and the importance of the object to be achieved compensated for the heavy losses in A. F. V.'s to which their inability to reconnoitre adequately must render them liable.

"Finally, to ensure intimate cooperation, he stressed the importance of peace training and the necessity for a specially selected mobile troops' commander with an adequate staff.

"In answer to a request by the G. O. C. for suggestions, Colonel Broad said that he would go even further; he would add to the mobile troops specially trained Infantry carried in mechanical vehicles."

The Cavalry Rifle Team

IN the middle of May the candidates for the 1931 Cavalry Rifle Team assembled at the Erie Ordnance Depot, La Carne, Ohio, for preliminary training and tryouts to determine the members to form the team for the National Matches. In charge of the tryouts and organization of the team is Lieutenant George A. Rehm, 3d Cavalry, captain of the team. Lieutenant Clyde A. Burcham, 7th Cavalry, is team coach. Officers attending the tryouts are: Captain H. H. Cameron, Lieutenants W. S. Biddle, G. A. Brickman, W. S. Conrow, J. L. Hathaway, P. M. Martin, J. S. Moran, S. L. Myers, R. D. Palmer, J. J. Phillips, H. W. Stephensen, C. A. Thorpe and G. A. Williams. Thirty-six enlisted competitors have been ordered to the camp, of whom ten fired last year on the team.

Change in Duration of Courses

A CHANGE has been authorized in the duration of courses for Regular Army officers at the Cavalry School for the fiscal year 1932, to begin the courses September 7, 1931, and end same June 17, 1932, instead of beginning September 15 and ending June 10. This includes the Troop Officers' Course, the Advanced Course and the Advanced Equitation Course.

An Outstanding Cavalry Troop

ONE of the outstanding units in the National Guard Cavalry is the Machine Gun Troop, 108th Cavalry, Georgia National Guard, whose home station is at Atlanta, Georgia. The personnel is recruited from among the young men who are students at or who have graduated from Georgia Tech and Emory University. They boast a long waiting list.

It is understood that much of the armory drill pay of both officers and men of the troop is donated to the Troop fund and used for organizational purposes. As a consequence the recreational equipment and armory facilities have grown into a value of thousands of dollars.

At a recent inspection of the troop by a Regular Army instructor he found conditions such as to call for the expression of high praise for the outfit, which was transmitted to the Commanding General, Fourth Corps Area, who in turn complimented the troop for its efficiency and soldierly qualities. General McCoy furnished the Troop Commander with a copy of the remarks of the inspector and added his commendation. In his letter to the Troop Commander he said:

"1. Upon my visit of instruction to Machine Gun Troop, 108th Cavalry, Georgia National Guard, on No-

vember 4th, 1930, a thorough inspection was made of animals, stables, store-rooms and property.

"2. The conditions found to exist in this organization are far superior to any found within this State.

"A special room has been constructed in which to care for roll collar uniforms, overcoats and woolen equipment.

"The uniforms are hung in a specially constructed closet with curtains, preventing dust and moths. Woolen blankets are carefully stored in this room with ample protection against moths. This room is sealed and thoroughly impregnated with naphthaline.

"3. A special room has been constructed for storing of tentage and organization equipment. This permitting prompt accessibility of equipment in case ordered out upon short notice.

"A storage shed has been constructed for the care of organization transportation permitting property to be housed from weather, also a complete blacksmith shop has been constructed, well lighted and equipped.

"The above report indicates that the officers and enlisted men of your organization have set a high standard for units of the National Guard of your State and the Fourth Corps Area. The 'esprit de corps' indicated is highly praiseworthy. Your organization and its commander are commended."



Organization Activities

1st Cavalry, Fort D. A. Russell, Texas

As this is written the First Cavalry is just leaving for the maneuvers of the First Cavalry Division north of El Paso, to include the vicinity of Alamogordo, N. M. The regiment is accompanied by the 2nd Pack Train. The date of return from maneuvers will be about June 10.

Captain H. E. Watkins, 1st Cavalry, is detailed to take the course at the Field Artillery School at Fort Sill, Okla. Captain H. S. Beecher goes to the 11th Cavalry at Presidio of Monterey. Captain Beecher is looking forward to making that section of California his permanent home after retirement. Lieuts. H. M. Zeller, P. A. Ridge and H. W. Johnson go to the Cavalry School in September.

After a long wait, electric refrigerators and stoves are about to be installed in quarters at Fort Russell. Contractors have arrived and are now drilling a new well near the site of the wooden water tank. When the well is finished, a tank will be built nearby, and we may then expect to have sufficient water to beautify the surrounding of the post.

Citizens of Marfa and the surrounding Big Bend or Highland country have banded together to form a polo club and have already completed fine new stables and a club house near the reservation. They plan to incorporate under the laws of Texas and will furnish new competition for our polo teams.

A guest house is now a part of the post equipment, and the members of the garrison offer traveling officers and their families the hospitality of the post.

2nd Cavalry, Fort Riley, Kansas

When Colonel Alexander M. Miller left command of the Second Cavalry April 1, 1931, to become chief of staff of the Seventh Corps Area at Omaha, Nebraska, his staff reminded him that the files of the regiment showed that there had been a steady improvement in the accomplishments of the regiment during the two years and eight months that he had been in command. Many remounts trained, longer practice marches, active participation in hunts, and the acquisition of French horns for the bugle corps and of organization year (1836) uniforms for the guards to the standard and the standard bearers were among the features characterizing the period. Rifle marksmanship improved from 91.8 per centage qualified in 1928 to 94.9% in 1930 with mounted pistol work jumping from 72.6% to 93% while the regiment maintained its 100 per cent of qualifications in both machine rifle and machine gun firing for all three years. The rate of desertions improved 51.8% and at the same time re-enlistments increased from 29.2 to 48.9% in 1930. Best wishes of officers and men alike went with the regimental commander to his new post.

6th Cavalry, Ft. Oglethorpe, Ga.

The Regiment (less Troop A) departed from its home station by marching on March 23, 1931, en route to Fort Benning, Georgia, for concentration of troops of the Fourth Corps Area for combined maneuvers. The Regiment arrived at Camp Leonard Wood, Fort Benning, Georgia, on April 4, 1931. The march was made without particular incident. Total distance marched:—231 miles.

The period April 6-11, 1931 was spent on regimental problems with particular reference to reconnaissance and night operations. Maneuvers of units up to the division followed, ending May 1. It is estimated that the regiment covered approximately 400 miles during the above maneuvers.

The regiment departed from Fort Benning, Georgia, on May 4, to home station via Atlanta, Georgia. While there it participated in the Atlanta Horse Show, May 21-23. On May 26th the Regiment departed for its home station, arriving there May 30, 1931. Estimated distance of return march—261 miles.

7th Cavalry, Fort Bliss, Texas

The Seventh Cavalry spent the month of May in final preparation for and participation in the Division maneuvers to be held in the Sacramento Mountains. Preparation consisted mainly of conditioning animals and short practice marches, some at night, as the coming maneuvers will be continuous and troops will have to do most of their marching under cover of darkness. Afternoons will be devoted to preliminary rifle and small bore practice, all troops having completed their dismounted pistol work.

Two Gary Owen polo teams are tied for first place in the post polo tournament. In the senior division the "A" team, 2nd Lt. P. D. Harkins, Capt. H. G. Culton, Capt. T. E. Voigt, and Capt. C. L. Stafford, has not lost a game and is tied for first with the 82nd F. A. Team, and in the junior division, the team of 2nd Lt. H. H. Howze, 2nd Lt. T. F. Van Natta III, 1st Lt. L. L. Judge, and Capt. Kirk Broadbush is tied for first with the Division Headquarters and 8th Cavalry Teams.

9th Cavalry, Fort Riley, Kansas

A considerable number of personnel changes have taken place in the regiment this spring. Officers recently assigned to the regiment are: Majors H. D. Chamberlin, J. W. Barnett, N. E. Fiske, James G. Monihan; Captains W. T. Bauskett, Jr., James T. Duke, J. T. Cole, G. B. Guenther, and W. B. Bradford; 1st Lieutenants H. L. Kinnison, C. J. Meehan; and 2nd Lieutenants R. W. Curtis and T. F. Trapolino.

Effective June 19th, Lieutenant Colonel Adna R. Chaffee is assigned to the regiment for duty as Direc-

tor of the Department of Horsemanship. Major John Millikin is assigned effective on completion of the course at the War College. Captain R. T. Maddocks will join on completion of his course at the German Cavalry School.

Captain G. E. Huthsteiner has been ordered to the German Cavalry School and Captain R. C. Winchester to the Polish Cavalry School.

The following officers are detailed for duty in connection with training for the Olympic Equestrian Events: Major Chamberlin, Captains Bauskett, Cole and Bradford; Lieutenants Kinnison, Meehan and Curtis.

11th Cavalry, Presidio of Monterey, California

On April 10th the garrison held a Gymkana in the morning and a Horse Show in the afternoon on the new drill field recently constructed, which the Commanding Officer, Colonel Ben Lear has named Francis Moore Field in honor of the first Colonel of the Regiment.

The Regimental Polo Team is now playing a series of games at the Presidio of San Francisco with the Ninth Corps and civilian teams. The team is now composed of Lieutenants Jernigan, Harrison, Thornburgh, Trapnell and Justice. A West Coast Army Team composed of Major Wood, Lt. Thornburgh, Captain Kilburn and Lt. Matthews, 30th Infantry, won the Pacific Coast Inter-Circuit at San Mateo March 28th, defeating Midwick in the final game. A team made up of Lt. Jernigan, Lt. Thornburgh, Captain Kilburn and Colonel Wilson won the 15 goal tournament April 12th at San Mateo, defeating Santa Barbara in the final game.

The regiment regrets the loss of Captains Hood, Jacobs, Everitt and Lieut. Trappell and welcomes Lieut. Colonel John Cocks, Majors R. E. McQuillan, H. Herman, E. M. Barnum; Captains H. S. Beecher, S. Berg, H. H. Cameron, James S. Rodwell; 1st Lts. C. W. Feagin and H. W. Davison whose orders to join have been received.

12th Cavalry, Fort Brown, Texas

The 12th Cavalry, Colonel Francis W. Glover, commanding, completed annual spring maneuvers and field training on April 14. Commencing with a maneuver phase, the regiment less 2nd Squadron, stationed at Brownsville operated against the 2nd Squadron at Fort Ringgold. After a meeting engagement about half way between the two posts, the 2nd Squadron fought a delaying action against the regiment for about 50 miles. The entire regiment then took part in a series of field exercises. The Corps Area Commander, Major General Winans, with members of his staff, made his annual tactical inspection during the last two days, of the maneuvers and pronounced the regiment as "fit for field service" and "animated by an exceptionally fine spirit." The field exercises terminated April 11, when each part of the regiment returned to its station.

Captain R. H. Garity has been ordered from the 2nd Squadron to the Advanced Class at Riley. Major

Geoffrey Keyes, who has been in command of the 2nd Squadron has been ordered to the Ecole de Guerre. Major R. C. Rodgers will relieve him.

13th Cavalry, Fort Riley, Kansas

At 9:30 A. M., April 29th the regiment was assembled in the War Department Theatre to celebrate its 30th birthday.

An overnight practice march was made on April 23-24. The regiment less Machine Gun Troop and Troop "B" marched 16 miles to the farm of Henry Amthauer. The roads were very muddy and rain fell almost continually during the march.

First Lieutenants John W. Wofford and Earl F. Thomson have reported. Both officers are members of the Olympic Equestrian Team.

Colonel Walter S. Grant, Regimental Commander, is under orders to report to the First Corps Area as Chief of Staff, effective June 30th. He will leave the regiment on May 20th.

14th Cavalry (less 1st Squadron) Fort Des Moines, Ia.

The winter training season of the regiment was concluded with a detailed training inspection during the middle of April, the results of which were highly satisfactory. The coming months will be devoted to target practice, field training and preparation for summer camp.

On March 27th and 28th a Military Pageant was given at the post by the Regiment, assisted by the 2nd Bn. 18th F. A. and the ladies of the ladies riding classes. The demonstration by the monkey drill troop and cossack troop shamed the "Old Army" advocate into silence, and the drill and jumping was, we believe, the best.

Polo opened at Fort Des Moines with a good turnout and some excellent mounts in prospect.

Colonel Edgar A. Sirmyer, our Commanding Officer for the past three years has recently been relieved from assignment and assigned to Organized Reserve duty in Detroit. Lt. Colonel G. H. Baird, 14th Cavalry, assumed command of the Regiment upon the departure of Colonel Sirmyer.

305th Cavalry, Philadelphia, Pa.

The regular weekly meetings were held during April. Regimental Day was celebrated on April 17th by an exhibition ride and dinner. The ride was held in the First City Troop Armory at 6:00 P. M. It was followed by a steeplechase which was won by Lieutenant Bradway Brown. Colonel Forbes presented Lieutenant Brown with a beautifully decorated cup. The dinner was held at 7:00 P. M. in the banquet room of the City Troop Armory. Many distinguished visitors were present including Colonel Mayo from the 62nd Cavalry Division.

The regiment is now preparing for active duty training at Fort Myer from July 5th to 18th.

306th Cavalry, Baltimore, Md.

Instruction in equitation has been resumed at Fort Hoyle, Maryland, with larger attendance than last

year. It appears that the number who will avail themselves of this instruction is only limited by the number of mounts available. Due to the availability of a riding hall at Fort Myer, Virginia, instruction in equitation for the 2nd Squadron, 306th Cavalry, was continued all winter, and the approach of Spring served to increase the enthusiasm of those who participate in these rides.

At the regular conferences, in addition to the usual instruction, problems have been prepared and each student given a separate requirement. While this requires a great deal of clerical labor, it is believed that the increased interest of the students makes the scheme well worth while.

307th Cavalry, Richmond, Va.

Lieutenant Colonel William Henry Clifford, Cav. Res., Commanding 307th Cavalry is spending some months abroad. Lieutenant Colonel Robert B. H. Begg is commanding the regiment during Colonel Clifford's absence.

The Regimental Standard presented to the 307th Cavalry Association has been received from the Quartermaster Depot in Philadelphia, Pa.

Applications for active duty training at Fort Myer, Virginia, August 2nd to August 15th are being received daily. From present indications the number of applicants for this training will be in excess of the authorized quota.

Second Lieutenant James T. Sims, Virginia Military Institute, Lexington, Virginia, has recently been assigned to the 307th Cavalry.

Eighteen members of the present First Class at Virginia Military Institute will be assigned to the 307th Cavalry upon graduation. Five of this group have applied for active duty training this summer.

Third Squadron and Machine Gun Troop, 307th Cavalry, Norfolk, Va.

The History of Cavalry during the World War was the subject of a conference given in Norfolk on April 16, 1931 by the unit instructor Major David H. Blake-lock, Cavalry, (D.O.L.). The conference was well attended, thirty-second reserve officers and civilians being in attendance.

The members of the Norfolk Saddle Club were entertained on the night of April 30th with "The Life of Riley" and two reels of motion pictures taken at the Italian Cavalry School. These pictures were received very favorably and the consensus of opinion of the civilians present was that the Italians have nothing on us.

The officers of the squadron are looking forward with much pleasure to active duty training at Fort Myer, Va., which will take place from August 2 to 15th. The regiment will train as a unit at that time and it is expected that the quota will be filled.

308th Cavalry, Pittsburgh, Pa.

The 308th Cavalry polo team won the Pittsburgh Polo League Tournament and cup with the loss of but one game to the 107th Field Artillery.

On Saturday, May 2nd they played the Mill Creek Riding and Polo Club of Youngstown, Ohio, winning 8½ to ½ and returning previous courtesies with a dinner before and a buffet supper after the game.

The regimental fund has bought a Webley Air Pistol for indoor practice which furnished those who attended the unit meeting on May 4th with some interesting entertainment.

Through the efforts of First Lieutenant Edward R. Ayres the indoor rifle range of the Spang Chalfont Company has been made available to the regiment on Wednesday evenings after the riding class. Many officers have availed themselves of this opportunity.

862nd Field Artillery, (Horse), Baltimore, Md.

This regiment is much pleased at being ordered again this year to Fort Hoyle, Maryland, for a period of active duty under the guidance of the Sixth Field Artillery with whom it has had the privilege of serving for the past two years. Already the quota is over subscribed.

Preparation has been effected through regular regimental conferences on technical and tactical employment of Horse Artillery, on Supply and in the Unit Mobilization Plan. Instruction in pistol marksmanship has been available weekly throughout the winter and in equitation each Sunday during the Fall and Spring months.

56th Cavalry Brigade, T. N. G.

The 56th Cavalry Brigade has just completed its annual Federal Inspection. The Brigade was inspected by Major Frederick R. Lafferty, Cavalry (DOL), accompanied by Captain Fred Ward Edmiston, Brigade Adjutant, as State representative.

The 112th Cavalry had a 100% enlisted personnel present for the inspection. This is the second consecutive year this regiment has attained this record. The 124th Cavalry had an average attendance of 90.8% for the inspection while the Brigade Headquarters Troop had 100% present.

Now that the armory inspection has been completed, all troops in the Brigade are preparing for the field training period—July 4th to 18th, inclusive. A three-day maneuver will be conducted during the camp period. Troops have equipped themselves, at their own expense, with ration packs and the U. S. P. & D. O. is getting the Brigade thirteen kitchen packs, Cavalry, which will be issued at camp. This means there will be no wheels during the maneuver and the Brigade will operate in real cavalry style.

The Instructors for the Brigade have planned a problem whereby the two regiments will operate against each other during the maneuver. Brigadier General Jacob F. Wolters, the Brigade Commander, will be the Senior Umpire assisted by Colonel P. W. Corbusier, Cavalry (DOL), Major J. R. Finley, Cavalry (DOL), Major Carl H. Strong, Cavalry (DOL), and Captain Frank H. Barnhart, Cavalry (DOL).

Lt. Colonel Innis P. Swift, Cavalry U. S. A. will report for duty as Senior Instructor to the 56th Cavalry Brigade sometime in June.



BOOK REVIEWS



My Experiences in the World War, by General John J. Pershing. Frederick A. Stokes Company, New York, 1931. Two Volumes. Illustrated. Cloth. 836 pages, indexed. \$10.00.

No student of the history of the World War can neglect an account of it written by one of the Allied Commanders. As Commander in Chief of the American Expeditionary Forces, General Pershing has written an historical document which members of the military profession everywhere should read and absorb. In chronological form and in very interesting manner he describes the American participation in the World War from the view-point of the Commander in Chief, with emphasis on the questions of policy which his responsible position thrust upon him.

In the early chapters of his book General Pershing dwells strongly on the lamentable unpreparedness with which America entered the greatest conflict which the world has ever seen. While his criticism of this condition may be resented by some who were in responsible positions, the reader is impressed with the fact that the General's purpose is not to place blame, but to prevent recurrence.

The book is filled with quotations from the Commander in Chief's diary which convince the student that the facts are as stated, and not afterthoughts. General Pershing's account of the war is almost unique in that very little acrimoniousness appears in it. He mentions differences of opinion, but with an absence of vituperation which emphasizes the dignity of the author and his calm appreciation of values. The book indicates that General Pershing had a confidence in himself and in the capabilities of the American Army which never deserted him. This is one of the highest attributes of leadership.

The student of history (and particularly of American history) will be impressed with the lack of "politics" which existed during the World War. There were no "political" generals, as there were in the Civil War. The subordinate commanders stood entirely upon their merits. It is obvious that this system might cause hard feelings and perhaps a sense of injustice in some individuals affected, but it is the only system which will win wars in the shortest possible time and with the least loss in lives and treasure.

The absence of "politics" came from the support and backing which General Pershing received from the President and the Secretary of War. This support is nowhere more apparent than in the discussion of the use of the American Army in France. It is well known that the British and the French brought extreme pressure to bear in order to induce General Pershing to agree to the replacement policy which they advocated. A weaker man would have been gradually worn down. Nor were their efforts confined to the almost continuous argument with the Commander in Chief; they included

an appeal to his government over his head and behind his back. It required a leader of exceptionally strong character to stick to his soundly reached opinion when there must have been doubts that he might not be jeopardizing the allied success.

Much of General Pershing's book is concerned with his experience with the other allied leaders who insisted that the American Army be used only for replacements, that it be not organized as a separate command. General Pershing's decision displays that type of extra-military knowledge which every great military leader should possess. He knew that the temperament and national characteristics of the American people are such that they never would have consented to arrangements such as our Allies proposed, that it is not in our nature to play second fiddle or to be placed in a position in which American initiative and ingenuity cannot be utilized. General Pershing states that American morale would have suffered through contact with our Allies, who were then almost in a defeatist state of mind, and that differences in temperament, in language, in habits, even in language, would have added to the difficulties.

If General Pershing seems to overemphasize the problem of the status of the American Army it is because it was a troublesome and ever present one to him. Perhaps his stand had more to do with the position of the United States in the peace negotiations than will appear to the casual reader. Without the prestige acquired by American troops acting as a separate army, it is entirely possible that a peace might have been consummated which would soon again have involved the world in a conflict even more disastrous than the last one.

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The Rise of U. S. Grant, by Colonel A. L. Conger. U. S. A., Retired. The Century Company, New York, 1931. 377 pages. \$5.00.

Here is a book on military affairs that occupies the same relationship to other military books that the slow motion picture does to the regular pictures. Reading it is like being instructed by the slow motion camera. The step by step process of the making of a general officer is slowly and clearly unfolded before the eyes of the reader in a fashion that is not only unusual, but unusually interesting. Colonel Conger makes no attempt to write a complete biography of General Grant, but confines himself to the Civil War period of Grant's life, and more especially to the early part of the War, when Grant was an unknown and obscure officer in the west.

The bibliography used is most complete, but the author relies very little on General Grant's own Memoirs, written years after the event narrated, nor does he lean very strongly on the various contemporary writers, most of whom had a strong bias for or

against Grant. He does, however, make use of the official records, and compels Grant to tell of his thoughts, actions, and mistakes, and the lessons that he learned from them, in his own written words.

The training of General Grant for his final command and responsibility was almost perfect. First we find him as the commander of a regiment of Illinois volunteer infantry, and concerned with his own immediate job of training and equipping. His experience in the Mexican War as a regimental quartermaster is of great help to him here. Then his promotion to brigadier general and larger responsibilities in Missouri. His aggressive spirit keeps him more or less continuously in trouble with his superiors, but they recognize his growing ability, and keep promoting him to larger commands and responsibilities. As a district commander with headquarters at Cairo, Illinois, he learns more of the art of being a commander, and also acquires more tact in dealing with both seniors and subordinates. He commands the expedition against Forts Henry and Donelson, and any tendency to get an exaggerated opinion of his own powers and ability is quickly squashed by the treatment afforded him by General Halleck. For a period here he learns to take abuse and injustice without quitting. During this time of enforced inactivity he gives considerable thought to the larger strategical problems of the war, and more especially the importance of the western theatre of the war as it applied to the economic situation of both the North and the South. We see the results of this period of thinking later on in his grand plan for the consummation of the war.

To the reader who seeks new light on the larger campaigns of the Civil War, "The Rise of General Grant" will not offer anything extraordinarily new. The author sticks to his main idea very closely, that is, the Rise of General Grant. Except for emphasis given to General Grant's strategical plans for the ending of the war, the Vicksburg Campaign, the Wilderness Campaign, and finally the operations around Petersburg, are given scant notice. It is the small battles early in the war in the West, and the gradual enlargement of commands and responsibilities that made Grant, upon which the author dwells.

The book is intensely interesting to a soldier because the teachings of loyalty, duty, devotion to ones command rather than self-advancement, are here brought out vividly and in a manner that all who are not blind can read—and benefit by. It was this part of Grant's character, in addition to his aggressiveness and common-sense, that enabled him to profit by the daily lessons taught by war, and rise above all the others to the supreme command of all the Armies of the United States. Your reviewer recommends this book to all officers.

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Marines and Others, by Captain John W. Thomason, Jr. Scribner's, New York, 1929. 290 pages, \$3.00, illustrated by the author.

This collection of ten short stories by Captain Thomason of the Marines is in his usual style. The

illustrations are virile. The stories, mostly about Marines afloat and ashore, are written with the sympathetic touch of a man who knows the Devil Dogs, as they like to be called.

The titles of the stories, *The Letter Home*, *Love Story of a Marine*, *Before the Rain*, *War Dog*, *Hate*, *Distinguished Service Cross*, *Tell It to the Marines*, *Air Patrol*, *The Marines See the Revolution*, and *Crossing the Line with Pershing*, indicate their subject matter.

If you are looking for action, description, adventure and life—read "Marines and Others."

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Mount Vernon, by Minnie Kendall Lowther. The John C. Winston Company, Philadelphia, 1930. 282 pages. \$2.00.

This little volume will serve not only as an excellent guide for a visit to present day Mount Vernon, but also contains much interesting information concerning its early history and that of the Washington family. It traces George Washington's ancestors and descendants, together with the several allied families, and tells the story of the Popes, the Warners, the Reades, the Martineaus, and the Balls, with the anecdotes and pictures of the old manors in which they lived. The story of Nelly Custis is feelingly told. In fact, the whole work is a work of love on the part of the author, who has apparently devoted years to careful research. As a result, it offers a compact compendium of information upon the genealogy of four of the most noted families of colonial times, the Washingtons, the Custises, the Lewises, and the Lees. The last part of the volume deals with the mansions of Abingdon, Woodlawn, Audley, Arlington, and the White House on the Pamunky.

In view of the approaching celebration in commemoration of the two hundredth anniversary of the birth of Washington, "Mount Vernon" should prove of value and interest to many readers.

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Best Short Stories of the War, edited by H. C. Mincin, André Maurois, Arnold Zweig, and Coningsby Dawson. Harper's New York, 1931. 826 pages. \$3.50.

This anthology is made up of sixty short stories selected from American, British, French, and German writers. Some few are extracts of novels.

"Fine writing" and ability to move one to pity seem to be the main tests applied by the editors in making their selection. The collection would be infinitely more entertaining—and that, in the final analysis, is why one reads short stories—if it contained more stories written in the lighter vein.

Craftsmanship and short story technique they all possess, and are therefore good models for study for those who try their hand at writing.

Cavalry in European Armies

(Continued from Page 37)

regiment and 1 armored car squadron; then as units belonging to the corps, 1 horse artillery regiment, a few motorized batteries, armored cars and 1 bicyclist engineer battalion.

Switzerland: In spite of the fact that the country is chiefly mountainous it has a comparatively strong force of Cavalry, that is to say, 6 regiments, each having 3 squadrons of cavalry with 6 light machine guns, and 1 machine gun squadron with 6 heavy machine guns. These are organized into 3 cavalry brigades, which in addition have one cyclist battalion. Switzerland does not have any horse artillery. Field artillery batteries are assigned to the cavalry brigades, which naturally also is a disadvantage.

In addition to this, there are 6 dragoon detachments of 2 squadrons each, which are to be assigned as regimental cavalry for the 6 infantry divisions.

As everybody knows, Switzerland has the militia system, in which the cavalrymen are trained for only 3 months and then go home with their horses, harness and weapons. The soldiers must naturally come to the maneuvers and to war with these horses.

Austria, the organization of whose army was prescribed by the Treaty of Peace, has only very little Cavalry, that is to say, 6 independent squadrons with 2 heavy machine guns each. These 6 squadrons form the Cavalry for the 6 mixed brigades.

Hungary, whose army organization is also limited by the Treaty of Peace, nevertheless has a comparatively strong force of Cavalry, because the topography of the country is very favorable, there are many fine horses in the country, and the Hungarian is a born rider.

There are 4 Hussar regiments of 2 squadrons of Cavalry and 2 machine gun squadrons each. The cavalry squadron has 2 light machine guns, the machine gun squadron 6 heavy machine guns; the regiment also has 1 engineer and 1 telegraph section.

In the year 1928, 2 cavalry brigades were organized, for which, however, there is only one horse artillery battalion available. Every brigade also has 1 bicyclist battalion.

Bulgaria has 3 cavalry regiments, each of 4 cavalry squadrons and 1 machine gun squadron.

Greece has 4 cavalry regiments, each of 3 to 4 cavalry squadrons and 1 machine gun squadron, which are combined into 2 cavalry brigades.

A Long March to Battle

(Continued from Page 39)

get my men to their horses as soon as possible and fall behind the second line of defenses. Skirmishing is going on now with the enemy and our Infantry.

* * *

The engagement on May 28th described in the last letter, above, was known as the Hawes' Shop Fight.

This regiment also took part in the following battles and engagements during the Virginia Campaign of 1864: June 11th & 12th, Trevillian Station; June 20th, White House, on York River; June 24th, Tamar Church; June 25th, Nance's Shop; June 26th, Battle near Stoney Creek; July 5th, Riddle's Shop; July 9th, Sappony Church; August 23rd, Gravelly Run; August 25th, Rheam's Station; Sept. 16th & 17th, Cattle Raid, near James River; Sept. 29th, Vaughan's Road; Oct. 1st, Cumming's Farm; Oct. 27th, Boynton's Plank Road; Dec. 14, 15 & 16th, Raiders on P. & W. R. R.

In order to account for the greatly reduced strength of the Regiment when ordered into action after its arrival at Richmond, an extract from a narrative report written by Colonel B. H. Rutledge shortly after the war is quoted:

"Upon reaching Richmond further difficulties occurred; the Richmond shops were overburdened with work. The shoes, bad in themselves and badly and hastily put on, had, nearly all of them, been lost. The horses were lame and foot sore. The arms of the men also had been forwarded by rail (for the purpose of lightening the horses) and there was considerable delay and difficulty in getting them from the railroad; much trouble also occurred in redistribution, as the calibres were different at that time and it was requisite to have particular kinds of arms in particular companies.

"The pressure for troops was great at that especial period, and a portion of the Regiment, some three hundred and fifty men, with the best horses and arms, were hurried on to the North Anna River, where the Army of N. Virginia was then operating. It reached the North Anna on one day's march, and bivouacked for the night on the banks of that stream. At day-break the next morning the Army of N. Virginia fell back and these troops were joined with the Cavalry of that army, under General Wade Hampton, and marched rapidly towards Hawes' Shop for the purpose of feeling General Grant and developing his position."

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Organized November 9, 1885

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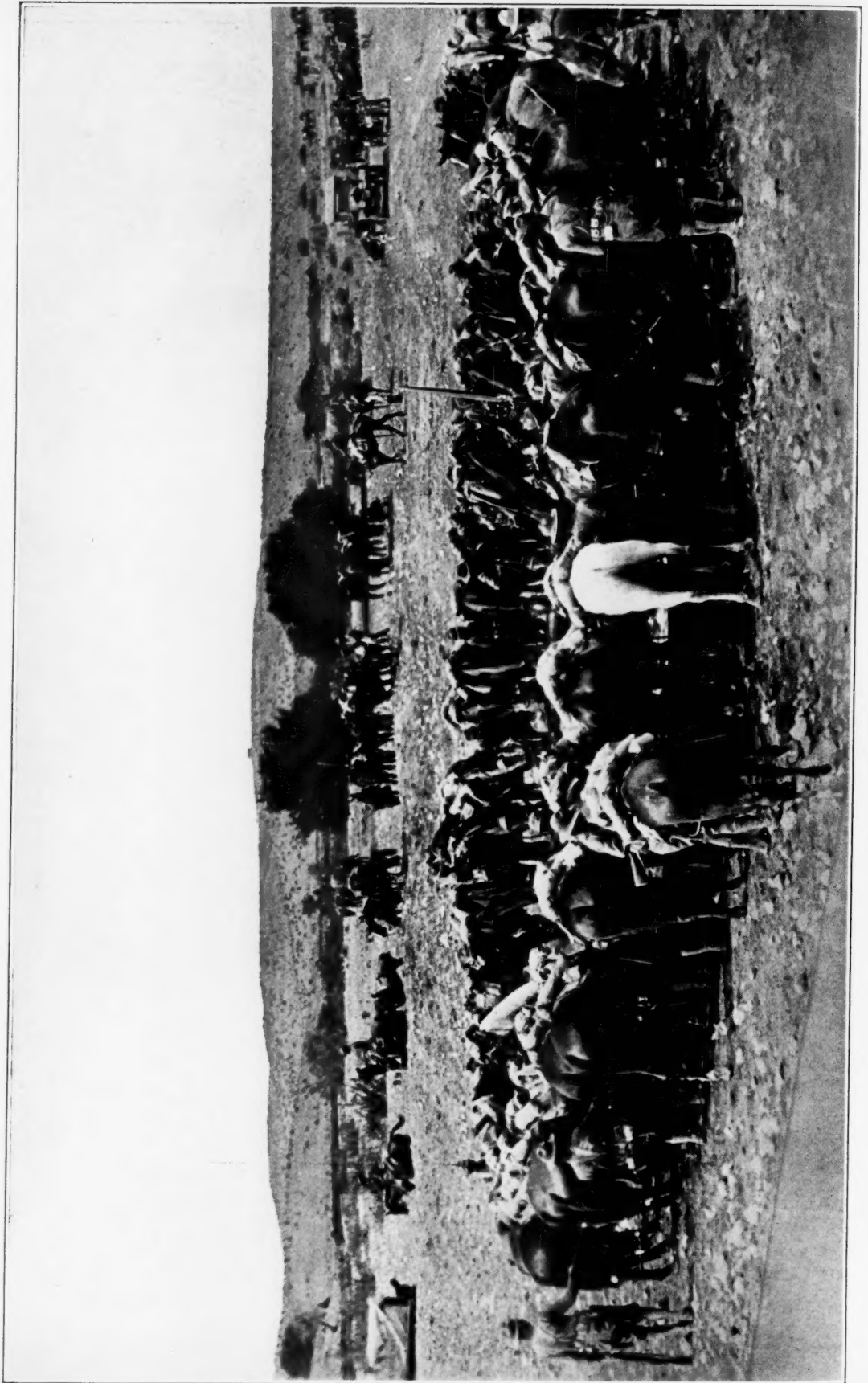
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